



JOHNNY WEISSMULLER BRENDA JOYCE
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Vol. 13, No. 3

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Spring, 1946

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PRING the Sarge the last keg of Napoleon vintage Xeno, Frogeyes—and the small ray-pistol from the inboard looker. And call the other two unloved children of a Plutonian musk-ox, sired by a hybrid Vulcanian Aardvark, in with you.

Before blasting himself into electrons, this old astrogator wishes to tell all of you what he thinks of you.

What have you done? Obey orders and you'll find out, you myopic satellite of a Jovian sub-cretin. And shake those dusters you call pedal extremities, my web-footed Judas. And stop sniveline!

Garrummengh!

Very well—at least you can still obey orders understandable by a Terrean tot of two. I
congratulate all of you. First the Xenoand stand at attention, Wart-ears. For the
love of Jupiter, stop wiggling those notules
on your aural appendages. It's enough to give
a good Sorge the Urenian pip, And close
a good Sorge the Urenian pip, And color
a nightmare under the best of condutions,
selence—while the Sarge contemplates his

Keno.

Hie! Now, my variets, I hope the enormity
of the crime you have committed under the
Sarge's name will penetrate those scaly hides
of yours.

What's that? You don't know yet? Listen

and weep.

On the cover of the March, 1946, issue of STARTLING STORIES, you cals lated a Hall of Fame Classic entitled TWELVE HOURS TO LIVE as written by Clark Ashmoton Smith. That story was written by another and the story was written by another as the story was written by another than the story was written by another as Terrean of literary note in the STF world. THE DIMENSION OF CHANCE, by Smith,

is the Classic in the current issue!

Never mind the bleats of apology, my fine feathered brachy-cephalics. Oh, well, half an oaf is probably better than no oaf—but three quarter-oafs are beyond this old space dog's powers to deal with them. So now it's the ray pistol for the Sarre!

But what's this? Great ghosts of Ganymedel Ye Sarge is going to stay his hand—at least until he can locate a Terrean fence scribbler, address unknown, who signs his desecration Danas. If the ray pistol is too merciful prepare a slow-action, radar-guided personal atomic bomb. One that will take

Look at what he's done to ye Sarge, Snaggletooth. How can he ever live it down-I

about six months to vaporize him.



mean the Sarge, not Danas. He im't going to hve much longer. Get a load of that slathering kisser! And that Lucius Beebe-Adolphe Menjou outfit he has me wearing. Those cobwebs are a fine commentary on your housekeeping abilities and industry, Wart-ears, sink me if they aren't.

So tune up the jets and the Keno. We're off to Earth to pick up this Danas' vibrations and slowly turn him to dust. He'll be surprised, will he not, my fine space servants, which he cleans his room in the morning and finds his big toe has been swept away by the (Continued on page 8)



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#### The ROSICRUCIANS

Ean Jose (AMORC) California

#### THE ETHER VIBRATES

(Continued from page 6) broom. Six months from now not even a vacuum cleaner will be able to pick him up!

#### OUR NEXT ISSUE

IPUT while the S.S. STARTLING STORIES is hurfling toward Earth with all jets blasting at full power to deal out its terrible vengeance on Dana, ye Sarge has a message near the state of th

THE DARK WORLD tells the story of a young American who feels a mysteolous call to a distant autumn bonfer at twilight and who, after receiving a strange nocturnal visitor, finds himself catapulted into a tangential world where his alter-ego is a monster of cruelty and sly oppression.

It is a world of magie, yet of understandable if grotesquely distorted physical forces, a world where he must struggle not only against some of the deadliset and most leathsome forces man ever knew, but also against the powerful will of the man who has substituted for him in the homeller, more kindly in this great novel. Kutture has succeeded

in combining the magnificent beauty and terror of true fantasy with subtle and convincing explanation that not even the most dyed-inthe-wool "pure" scientification fan can object to. Ye Sarge is convinced this is the outstanding postwar job SS has run.

Accompanying the novel is a memorable Hall of Fame Classic, THE MAN WITH X-RAY EYES, by Edmond Hamilton himself. Those of you who don't remember this bigtime story from its earlier printing will do so from next issue on. It has earned its designation as a classic. And there will be other (Continued on page 19)

. True Picture-Stories of the World's Greatest Heroes in

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— yet, it's from that famous favorite of the South, "Dixie"





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#### (Continued from page 8)

short stories and features, including, of course, Ye Sarge—if he doesn't use that raypistol on himself after all, what with the antics of his three space-zanies.

## ETHERERAMS

SINCE STARTLING STORIES has returned to a bi-monthy basis, the mail bag-transmitted by etherscope to Ye Sarge far in outer space—has been lagging still further behind. Some of you letter writers might try writing in a bit sooner. This old space does will appreciate it.

But the sack is full, and the complaints and laudations continue to come in in mixed lots. Okay, Froggie, let's get started. Set up the protective screens so Ye Sarge has at least a faint chance of survival.

#### CANADIAN CARP

#### By A. Bayjan

Deer Sarge: Winter STARTLING STORIES just hand, and read with enjoyment. But herewith two complishing in "Outlow World"! I was sheeked to find foce! For unless Base Review nas utilities wrong and Albert Rinstein no better thin a bunnler. If there were such a thing as a hollow world every lose object intended would drift to the centre of the evity and bright remain would drift to the centre of the evity and bright cannot be also be such as the same of the centre of the evity and bright world. Any kid who has done fills, School physics, knows

hash the requisited greenly-point of eacy body setch towards. Its cortice or man of the Try point of the Control of the Contro

So he liked the short stories, the impudent space-pup! Snaggie, old tooth, bring out some non-vintage Xeno. This baying Bayjan deserves no better. So he is dublous about Kivel Hamilton's physics. How does he know the story of the story of

modicium of probability.

He should remember that scientifiction is science fiction—and fiction is governed by no laws of physics, praise Allah. It has enough trouble with laws of its own that are far more difficult to follow because they are subjective rather than objective in origin.

Now for carp two-the matter of Joan and the space-suit. In the first place, the idea of our heroine being chilly under any conditions is an out-and-out insult. Secondly, she must have been coated with some sort of antiburst spatial collodion which the author merely forgot to mention. As for the slacks, most people take them off before going swimming, and she is certainly swimming through space. All this aside, it makes a better cover as Bergey handled it, and all of you little literal minds jump into the Red Spot on Jupiter or something. Next. Wart-ears!

#### THE SOUTH MILLS GRIND SLOWLY By Ross "Sergei" Burgess

by Ross "Serged" Burgess

The Street, March 1997, West court Heps in a section of the Street, March 1997, and Price Court

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minute toser a vocation for Neppy of seconds: "Neptune: "Oh, Saturn, e he is, right over here."

I took one good look and—REEEpyyseana-

was under oxygen for two weeks I was under oxyges for two weeks.
After recovering—Surge, is that thing on the left side
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Ross Rurnes
test illu in 38.

Welt, now that I have sixed my say. (And said my
or sair I had better be hurrying back to the Risyl Dimension.

Tally 86. Valiny, and don't leave the time machine behind THIS time. IV'Rnow, it took me twenty thousand years to find the dear hine last time. On well, and years to find the dear hine last time. On well, or the second of the second of the last time. One of the last time is the second of the last time. One cannot second the hine time is the second of the last her back on Earth 1'd carry him to Avylurus and leave him thereth—South MHIS, North Corolina.

Even after correcting the atrocious snelling in the above alleged epistle, Ye Sarge con-siders it the silliest of this or any other year-(Continued on page 103)

#### To People who want to write but can't get started

Do you have that constant urge to write but the fear that a beginner hasn't a chance Then listen to what the editor of Liberty said on this subject:

"There is more voom for newcomers in the writing field foldsy then ever before. Some of the gredest of writing men and women here passed from the seers in recent years. Who will take their places? Who will be the new Rebert W. Chamberr, Edgar Wellaco, Rulyand Kapling? Fame, riches and the happiness of achievement en-



o of power."

HAD NEVER WRITTEN E LINE
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### OTHER EYES WATCHING

#### By POLTON CROSS

Plunging into the dark mysteries of the fourth dimension, Dr. Douglas Ashfield and a beautiful girl find themselves beset by the cosmic chaos which sweeps Manhattan in 1970!

#### CHAPTER I

Matter Into Matter

HERE were only three people waiting in the reception room as the girl in the expensive powder-glass frock entered. She was a blonde, strikingly so, extensiting made up, tall, and her figure streamlined into all the grace the beauticians of 1970 could arbitrate.

She carried herself regally, betrayed her high social caste in every gesture. And with reason. Vera Brooks was worth seven million dollars in her own right. It could buy snything she needed, except breed—and that Mother Nature had conferred upon

her for nothing.

"Good morning, Miss Brooks," the receptionist greeted her pleasantly, smiling. "Dr. Ashfield won't be very long."

"Important cases?" Vera asked, her bright

An Amazing Complete Novel of the Future

gray eyes glancing towards the adamantly closed plastic door of the famous oculist's

"I'm afraid so."

Vera nodded, reflected, then retired to one of the armchairs by the far wall. She had practically gone through four illustrated magazines before the last patient departed. Then she got decisively to her feet, crossed to the surgery door and tapped upon it. Without giving time for a reply, she moved inside. Gliding gracefully post a massive supermodern ophthalmoscope, she confronted a tall, dark-hairged man with a sharply hooked.

"Good morning, Doctory" she said, and Dr. Douglas Ashfield looked up in surprise to meet her impish smile.

"Why, 'Vera!" He clasped her slender, hands earnestly, "I am glad to see you again! Last I heard from you you were jet-planing somewhere in the Pacific."

"I wasn't intending to come back to New York so quickly," she answered. "I only got in an hour ago, and came straight here. It's Mace's fault, really. He sent for me, and you know Mace! Anyway, I'm glad to be back, if only to see, you again." The girl back, if only to see, you again. The girl the optical instruments. "Can you tear your-zelf away long enough to take me to lunch?"

"Can I!" Dougha Ashfield pulled off his white coat and hung it decisively on the walnut stand. Then as he buttoned up his cuff-studs his face became thoughful. The girl had seen that look many a time before, when the firm lines of his still young face tightened and his Keen dark eyes took on a meditative

light.
"I'll listen," she offered, smiling, "What is

the great experiment this time?"

"Oh, just a dabble in mitonex lenses." He shrugged. "That is the new plastic Brassington found a couple of years ago. First class stuff for lenses, but I think it has other pos-

sibilities. It's the sclerotic coat which is worrying me now."

"The only coats' I know about are fur or glass," the girl laughed. "Incidentally, this frock is made of glass-powder. I bought it

in Florida. How do you like it?"

HE turned in a lovely pirouette: Douglas Ashfield looked at the frock absently, his mind on other matters.

"Nice," he decided finally. "Very nice." Then he jerked himself back to the everyday and hurried into his suit coat. On the way out he told the receptionist that his surgery would be closed until evening. Then with Vera on his arm, he took her out to her sleek dream of a car parked against the sidewalk.

"The Golden Comet," Douglas told the chauffeur. Then he settled beside the girl in the air-sprung cushions.

"I suppose your brother is as peremptory as usual with his orders?" he said, as the car

sighed away from the curb.
"I'm afraid so." Vera admitted, sighing, "I

"I'm atraid so," Vera admitted, sgning." " don't think he realizes just how much he does rule my life. It may be because I'm eight years his junior. That flatters his paternal instincts since Mother and Dad are both dead. Or cles it may be that he just loves power and the chance to order people around."

Douglas smiled to himself, deciding that a desire to exert authority was probably the case. He only liked Mason Brooks because he was Vera's brother, and for no other reason. Brooks was the chief physicist in the

organization known as the City Scientists.
Impersonal, cold, he was about as friendly as the inhuman work he studied. And Vers, tnever very iron-willed anyway, was more or less in his hands. She had money, yes, but so had he. In fact he was two million

never very iron-willed anyway, was more or less in his heads. She had money, yes, but so had he. In fact he was two million dollars ahead of her. Oid Man Brocks had revealed himself as something of a throw-less than the state of the house of the had money that had been always the house of the had money that had been always the house of the h

Douglas asked, when they were seated before the Golden Comet's most exclusive offering in lunches. "Anything private?"

"I don't know whether it is or not. He's engaged on an experiment which he says in-

volves the subat—sub—" Vera hesitated vaguely.
"Subatomic?" Douglas suggested.

"That's it! Something involving the subatomic waves of matter. He believely it, it'des will mean a great advance in science, and if that is on, he is prepared to sigh, all his money into it—and he may need some of mine too. So he sent for me. I am to writness this experiment. If it succeeds, you'll see me writting a cheek before you can hat

Douglas ate for a while in silence, rather wishing that he too had a wealthy sister on whom he could draw for money so freely

an evelash."



when he needed it. Of course the girl would soon be his wife, but he had the idea that a man in the real sense of the word does not progress on the strength of his wife's bankroll

Douglas had money too, of course-he was a most successful ophthalmic surgeon and

consultant-but it certainly did not amount to seven million dollars. "I suppose this experiment is exclusively

for you and Mason to witness?" he asked presently.

"He didn't say," the girl answered, eating daintily. "You know how offhand he is. But since it is at home in his privat. laboratory and not in the city physical research department, I imagine it is private. Why?"

"I was just wondering if I could see it too-and decide if it is worth you putting your name to a check. I'm not much good at physics, I admit, but I'm not a bad business man. I don't want to see my future wife depleted of her bankroll because of what may turn out to be a harebrained scheme. I know what a dabbler-Mason is-he's always at it! And so far he's never done anything particularly outstanding."

"If you like to tell him that, you're welcome," the girl said seriously. "Personally

I'd hesitate." Douglas considered for a moment or two.

Then excusing himself, he went over to the visiphone booth across the room. In a moment he had switched through to the Brooks residence on Fifth Avenue and the man-

servant's face appeared on the viewing-plate. "Mr. Brooks, sir?" he repeated, in response to Douglas' inquiry, "Just a moment,"

A FTER a while the physicist himself appeared, and Douglas decided he did not like the full-color image any more than he liked the original. Mason Brooks was lean-faced, with a droop in the corners of his thin lipped mouth.

He had the very long nose, which often goes with the inquisitive mind, and sharp gray eyes the same color as Vera's, but with none of their carefree brightness. Intelligent beyond the average-this was clear from the remarkably high forehead and the dead black hair oiled down away from it.

"Hallo, Douglas," he greeted briefly. "You're lucky to catch me at home. I'm 'just having lunch. Something I can do for

you?" "Vera's back in town and we're having lunch at the Golden Comet." Douglas explained. "She's been telling me about your experiment."

"Oh?" A vague surprise seemed to pass

over Brooks' face. "Well, it's right, of

course," he said. "What about it?" "Is it exclusive, or can I come, too?" "By all means, if you wish," Brooks was

none too cordial about it. "I shouldn't have thought myself, that a dabbler in mitonex lenses would have much interest in deep physics. Still, if you want to improve your knowledge, it's okay with me. I don't expect that dizzy sister of mine to understand my work, but for certain legal reasons she has to be present."

Douglas guessed that the legal reasons were connected with the possible need for her money but he refrained from saving so. "I'll come then," he promised. "And thanks."

"You're welcome," Brooks said indifferently. "In case Vera has forgotten it, the time is three o'clock. I'll be out until then."

Douglas switched off and returned across the restaurant to rejoin the girl. She looked at him curiously.

"Been bearding the lion?" she questioned. "Yes, and I'm coming with you. Three o'clock."

That will be a real prop for me to lean on," she said, relieved. "I hate these stuffy scientific experiments! Give me the open air where I can tear through the sky in a jetplane, or else shoot in a V-Sixteen across

the Atlantic. Anything like that." "I know." Douglas looked at her with his serious dark eyes. "You're a girl to whom life and movement mean everything. I've always realized that. I hope you're not going to find me an old sobersides when we're married. I shall have to stick to my work and my experiments, no matter what happens."

What men you and Mace are for experiments," she exclaimed. "But I promised I'd listen to you, didn't I? Tell me just what you are doing with this-this mitonex.

"Well, you'll hardly credit it, but I think that with mitonex I can make something of everlasting service to humanity-create an artificial eye!"

The girl did not look impressed. She went on with her meal with youthful energy.

"That isn't so wonderful, Doug," She shook her blond head. "An artificial eye has been going for ages,"

"Not a glass eye, dearest. An artificial eye which can see!"

She looked up at that, her pretty face startled. "But that hasn't ever been done! In fact

science says it just can't be done!" "Douglas Ashfield says it can." he replied. "It's just the problem of the sclerotic coat which is bothering me a little. That's the

white of the eye, you know, surrounding nunil and iris." You think you can do this-give sight to the blind?" the girl asked breathlessly. Then

as he nodded, her hand stole across the table and clasped his encouragingly. "Now that is worth doing. It really is! So much more useful than Mace's crazy experiments which will be bound to blow him up one day."

They both laughed, and thereafter-to the girl at least-the subject seemed to be forgotten. Douglas, knowing her somewhat wild spirit, knew that she had meant it when she had approved his idea.

But she had not the temperament or maturity for sustained enthusiasm over a subject she did not understand. By the time lunch was over, experiments in artificial eves and her brother's dabblings seemed

to be furthest from her mind. She insisted on an hour in the local news teleball and Douglas agreed just to please her. When they emerged into the sunshine again it was two forty-five, and the car was waiting for them. Punctual to the minute they were outside the door of the great

THE manservant let them in and did not look at all surprised at Vera's quick entrance. He was accustomed to her spas-

modic comines and coings. "My bags are in the car, Jefferson," she

Brook residence at three o'clock

said briefly, taking off the conical absurdity which passed for a hat, "Where is my brother?'

Jefferson did not need to answer for the tall figure of Mason Brooks appeared at that moment from the opposite end of the great hall. He stooped and gave the girl a dutiful kiss on the left cheek, then seized Douglas' hand in a

bony clutch. "Decided to risk it, eh, Doug?" he asked dryly. "Well, I can't guarantee that you'll

be interested, but I can hope. You've had lunch, I think you said?" "We're all ready for action," Vera an-

nounced.

"Good! That saves any delay. Come along to the lab."

Brooks preceded them to a door leading off the hall and flung it open. To Vera the place was familiar, even though it was sacrosanct territory which she had never entered except at her brother's request.

To Douglas Ashfield, though not a scientist in the accepted sense, it was a fascinating vision. Mason Brooks' money had succeeded in making the place as fully equipped with every modern scientific device as the city

physical laboratories themselves. Brooks shut the door and came forward. standing with his hands in the pockets of his white overall. Then he nodded to a machine which was obviously electrical in nature.

'I don't know whether either of you know anything about the constitution of matter." he said presently, raising an inquiring eyehrow.

"I know a little," Douglas answered, as Vera shook her fair head in bewilderment, "I know matter is composed of atoms and

molecules—that nothing solid is really solid." That, of course, is high school knowledge," Brooks observed dryly. "We shall need to go much deeper here. It is assumed by most leading scientists today that all kinds of matter can be penetrated, if one has

the right apparatus for doing it "I do not mean that a six-inch armor plate can be pierced by a high velocity shell-but that, say, a six-foot cube of cast steel can be made to pass through another six-foot cube of cast steel without damage to either."

"That sounds rather like a conjuring trick." Vera remarked.

Brooks glanced at her coldly.

"I did not assemble all this apparatus and work myself nearly into brain fever in order to perform a conjuring trick, sis, believe me! This conception is highly scientific, and I believe it is now perfect. If I can pass a solid through a solid without damage to either, the scientific and commercial possibilities will be endless.

"Man will be able to probe deep into the earth without any resistance. Military equipment like the five-hundred-ton tank will be able to so right through the thickest defense wall. The developments will be legion!"

"I can see that." Douglas agreed thoughtfully. "But how is it done?"

"Ah!" The physicist grinned cynically. "Now we come to the deep part. Solids, as you remarked. Doug, are composed of atoms, and atoms of course are miniature solar systems. In other words, if you can picture them from a sideways angle they are flat. "But this flatness points in all directions

them from a sideways angle they are flat.
"But this flatness points in all directions
or, more concisely, it is not organized. Because of the disorganization, no solid can fall

through another. No two solids can be said to occupy the same space at the same time." "Clear so far," Douglas agreed, thinking. Then he smilled as he saw Vera wofully holding her forchead.

"Now, atoms have poles." Brooks went on deliberately. "But these poles point in all directions." I have devixed a system whereby magnetism can make the atoms all flat—parallel—so that they only occupied in their about the space they occupied in their about the space have occupied in the solid and por right through another. But the moment the transition is complete and the magnetism removed, according to the space have come a winter than the moment that transition is complete and the magnetism removed comes a winter be obtained to the space of th

ordered state and solidity returns."

There was silence for a moment. Douglas hodded slowly.

"Yes—yes, I see what you mean. If you can do it, it will certainly be the biggest scientific achievement in many years."

FAINT flush of pleasure crept into the physicist's pale cheeks. Praise for his work was the one thing he loved.

"It will take plenty of money to demonstrate the principle on a big scale," he said.
"I have made so many bed experiments that the City Scientists haven't a great deal of faith in me. That may mean floating a company of my own. Anyway, we'll see first how I go on. I know it will work because mathematics have proved it. Now, watch carefully."

He switched on his peculiarly designed apparatus and tubes began to glow. Bar magnets too took on a faint haze of energy. The dynamos crept up the scale and whined.

Fascinated, Vera and Douglas stood watching together as two automatic arms shifted
two heavy cubes of east steel along a specially made cradle. As they came into the area
of the bar magnets they hazed visibly and
the other side of the laboratory beams faintly visible through them. Then, gradually/
they began to approach each other. They
-touched. There was a faint surge of added
sower in the sculpment.

Then the impossible began to happen!

Each block began to melt into the other, both of them narrowing their sizes as they came near to an identical fit. It was like a movie wherein a shadow image steps into itself.

"Ithink that proves it," Brooks said, when one block was dead inside the other. "Now we can..."

He broke off suddenly, his startled eyes

on the power-gauges.
"Hang it" he shouted. "I forgot! The extra energy means an increased load on

the magnets, and I don't think they'll stand it. I've got to tear these confounded things apart before the fuses break!"

He swung around fiddling with the switches which controlled the block cradles. The two blocks began to come out of one another again, but they had only progressed about six inches before the dreaded thing happened. The overload-blew the main fuses with a decisive snap. Other things occurred simultaneously.

Two blocks of steel were suddenly both in the same space at the same time. The colorsal energy produced by such a condition liberated itself in the form of a resistless expansion.

Douglas had just time to behold the whole apparatus apparently hurtling straight for him. He heard Vera scream as she reeled back with her hands clasped to her face.

Somewhere behind a machine Mason Brooks was cowering.

Then the laboratory attached to the Brooks mansion went sailing into midair and gave New York its most spectacular explosion for many a long day.

#### CHAPTER II

#### Synthetic Optics

To the six weeks and more Douglas Ashheld had little real awareness of what was going on around him. People came and went like so many phantoms in the midst of chaotic dreams. It was only by degrees that he realized the truth—that he was in a nursing home, that there of his ribs, an arm, and a leg were proken, that he had hed concusment of the six of the six of the six of the modern surgery had saved him. He was commencing to mend.

Then at last the clouds of his illness began

to evaporate. Weak but rational he was permitted his first visitor-Mason Brooks. The

scientist looked unusually harassed as he drew up a chair to the bedside. "To say that I owe you an anology sounds idiotic," he commented, as Douglas fixed his eyes on him. "I should have had more sense.

I'd worked it out by mathematics but had never made a practical test," "These things happen sometimes," Douglas muttered, without resentment. In fact he

was rather surprised to find the physicist so penitent. "I escaped the worst," Brooks went on

moodily. "I ducked behind a machine and got nothing worse than deep cuts and a few ahrasions. You're okay now and will soon be about again, But-"

He stopped, fingering his lower lip. "It isn't-Vera?" Douglas asked sharply, realizing that her name had not been mentioned so far. "She wasn't-killed?"

'No, not that." Brooks got to his feet under an uncontrollable agitation. "She's alivequite alive. In fact to look at her you wouldn't notice much difference. Face unmarked, body the same, only-you'd better see her." he finished, as though the subject were too much for him to handle alone.

He crossed to the door, opened it and reached outside. Douglas lay watching fixedly as the girl was led into the room. As Brooks had said she appeared no differentexcept for one thing. She was wearing large, deep blue glass goggles and moving uncertainly even through her brother held her arm.

Presently, as Douglas' horrified eyes bored at her, she reached the bedside. Her hands felt along the coverlet quickly, then she gave a little sigh of relief as Douglas' grip closed upon them. Carefully Brooks guided her into the chair, then he stood looking down on her morosely. "I'm glad you're all right, Doug," she

whispered, her voice hardly audible. "I was so afraid you might die." "But you!" he cried. "What in the name

of Heaven is wrong?" "She's blind!" Brooks said abruptly, and Vera's line tightened at the brutal frankness of it. "The explosion did it. Pieces of metal struck her in the eyes but missed her face. There was nothing for it but to remove the eves entirely in case the metal fragments worked into the brain and caused death.

Very said (CHAP, II)



Mercifully her face is unscarred."

"I'd sooner have died," the girl muttered.
"What's the use of going on living in the dark? Why couldn't it have been anything
"What are:

"What's the use of going on living in the dark? Who couldn't it have been anything else but this?" she burst out passionately. "I wouldn't have minded losing an arm, or a leg. They can be replaced. But to me, to whom the whole essence of life lies in movement and change, to be condemned to blindness

is unbearable!"

Her voice stopped and the room was very quiet. Then she spoke again, with a half smile.

"Forget it!" she said. "I'm all right now. Just gets me down when I think of it. I'm no quitter. But now and again I do get frightened of the blackness."

Douglas stroked her slender hands gently, his eyes fixed on her pale distressed face. "Would you mind taking the glasses off?" he asked quietly. "I'm an oculist, remember."

"I know, but even you can't repair what isn't there." The girl paused suddenly with a little catching of her breath. "Or can you?" she whispered. "I've just remembered that you said something on that awful day about

artificial eyes."

"Take the glasses off." Douglas insisted. She fingered behind her ears and her brother turned away and looked through the window. What regard he had for his sister was revealed more in that action than by anything else.

AD he not been an oculist first and a lover second, Douglas too would probably have looked away. But he didn't He fixed his gaze on the empty, tightly closed eyelids where the girl's eyes had been.

He studied the bluish spottlings where metal fragments had been driven deep above her eyebrows and at the edges of her temples. Then with an infinite delicacy his fingerends passed over the hollow eyelids. Finally he sat back.

"All right," he said. "Put them back."
"Pretty dreadful, isn't it?" the girl sighed,
adjusting the goggles on the bridge of her

nose.

Douglas did not answer for a moment.

Presently he spoke slowly.

"I want you to take her home, Mason, and look after her well. I have to get myselfright at the earliest possible moment. Then I will tackle the problem exclusively. There may be a cure. In fact there has got to be! Vers can't so through the rest of her life in total darkness, not in this modern age."

Brooks put a protecting arm round his sister's shoulders as she got up.

"What are you talking about?" he asked.
"What's the use of raising false hopes? This
isn't just eye trouble. The eyes themselves
have gone!"

"But the sockets are undamaged," Douglas answered. "To put it more plainly, the scaffolding is still in good shape. I think I can create artificial eyes, and I've thought so for years. Now I must turn that thought into a fact!"

Brooks hesitated. Finally he gave an incredulous smile.

"Well, get yourself better anyway," he said. "Then we'll talk again. Come on, Vera—this way,"

Douglas clasped her hand again, and watched as she was led from the room. He lay scowling for a while, before jabbing the bell button. From the nurse he ordered paper and pencil in such a fierce voice that

paper and pencil in such-a fierce voice that she had inner fears for her safety. The terrific stimulus of the tragedy he had witnessed got Douglas on his feet again in record time. Even before this he had spent every waking hour scribbling notes, making

computations, testing theories, and discarding them.

The first thing he did upon returning to his home was to catch up to date on his practise—which took him a fortnight—and then he closed down for a month for so-

called health reasons.

This done, he sent for Mason and Vera Brooks, summoning them to his surgery address where he had better opportunity for using his conforment.

"It think this is a waste of time," the physicist said, after he had settled the girl in a chair. "There's nothing you can do for my sister."

"I insist that there is!" Douglas declared, pacing up and down. "When I was in the nursing home I admit that I had my doubts. But I've worked out the final details since then. Just take a look at this."

He switched on a floodlamp and motioned Brooks to a table directly under it. Delicately held in a platinum claw, adjustable by so screws and pinions, was what appeared to be

a human eyeball. "Notice!" Douglas ordered, and switched the light off for a moment. Then when he flooded it on again the eye's artificial pupil contracted sharply. 1

"Hmm-pretty good," the physicist ad-

mitted.

"It's more than that," Douglas retorted.

"It's perfect! This eye is made primarily of
mitonex plastic molded at two hundred F.
That means it does not become solid and hard

That means it does not become solid and hard but retains the soft elasticity of the normal human eyeball. In front, of a different grade of mitonex and approaching the normal focusing curve of the human eye, is a plastic cornea, and behind it the lens, itself

tic cornea, and behind it the lens itself.

"The iris was the easiest part. It's made on
the principle of a camera iris, so delicately
sprung that the action of light photons striking it cause it to contract. When light in
excess ceases to strike it expands to the

point considered normal. The iris itself contains pigment, as does the human eye." Douglas stopped for a moment and searched the scientist's lean, tense face.

"I tell you, Mason. I've reproduced here everything the human eye possesses! A human being can be duplicated in any case, for the body contains no chemicals which a laboratory cannot produce. By the same

token I've reproduced an eye—the vitreous humor, the aqueous humor, the choroid coat, the sclerotic coat, everything." "Including the retina and optic nerve?"

Brooks asked, still unconvinced.

DOUGLAS nodded.

"Including those! The retina is simply the spreading out of a mass of nerve fibers forming the optic nerve itself, at the back of the eye. The optic nerve is only a carrier of sensation, the same as an electric wire carries current.

"You can see it here—this fine golden thread with a copper core. The thread reproduces the optic nerve with all the details of the natural one. So you see, nothing is missing."

"And you think it can give sight?" Brooks asked.

"I'm convinced of it."

"Nevertheless I'm going to correct this dangerous illusion, much as I want Vera have her sight back!" Brooks' face had become grim. "You ought to know, as even a layman does, that the eye 'itself' does not see. Put this in Vera's head and she'll still

be stark blind."

"If it were unconnected, yes," Douglas agreed. "But the power of sight is situated in the cortex of the occipital lobe of the brain. The excitations there produced give

ad- rise to visual sensation.

"Connect the nerves of this artificial eyeor rather of both of them since I have this eye in duplicate—to the right parts of the

eye in duplicate—to the right parts of the brain and vision is assured!" The physicist became silent, the corners

of his mouth dragged down. Vera got out of the chair and found her way to the table. "This all sounds rather wonderful to me,"

she said. "I wish I could see this eye you're talking about."

"The thing's too wonderful!" Brooks declared harshly. "The very operation itself

would be extremely dangerous. You admit that, Doug?"
"It would, yes," he assented. "But don't forget that I am an ophthalmic surgeon and have tackled similar difficult jobs—and surceeded. I believe I could succeed here, too.

and if so a new era in optics would be upon us."
"Ifi" Brooks echoed. "That implies a doubt. No, Douglas, you are not going to turn my sister into a guinea pig because of a bright

idea you have. I won't allow it!"

"You won't allow it!" Vera exclaimed.
"Tve some say in this, remember. I'm the one who can't see, not you. I'm all for it.
Anyway, if it fails I'll be no worse off and I shall know where I stand."

"I will not allow you to do it," her brother snapped. "I've never yet made a decision on your behalf which proved wrong. And I saw that this is too risky."

"Don't you think you owe Vera a chance to get her sight back?" Douglas asked quietly. "But for you and your experiment she wouldn't be blind anyway."

The physicist tightened his lips.

"I'm of age, and I'm going to risk it," Vera decided finally. "Name the day and the hour, Doug, and I'll be here."
"If you do attempt this operation, Douglas,

I'll bring the whole Ophthalmic Council down on your head," Brooks declared. "That isn't viclousses. It's plain commonsense. I know Vera is desperate, but I won't allow her to risk her life on an experiment which may prove fatal.

"In a year or two maybe perfection will be assured and other people will have taken the first blows. Certainly Vera won't! If the Ophthalmic Council learns what you are doing without their full sanction, it will mean you're sunt! You know that."

Douglas drummed his fingers on the table, his face set. "Fix your day and let me know," to girl answered.

girl answered.
"Vera, don't be such a fool!" Brooks

gripped her arm.

"I'm not a fool. You don't comprehend
what I'm enduring. You are not wandering
round in total darkness as I am. Do you
realize that it is nearly three months since I
saw a ray of light? Groping for everything,
bumping into things, unable to see how I
look? I can't bear it much longer. I'd sooner
die than staw blind. I'm coing to take the

risk and be hanged to you."

Brooks eyed her for a moment, then his iaw sourced.

"We'll talk it over," he decided, leading her to the door. "And I'd advise you to think again too Douglas".

"Sorry!" He opened the door. "It's up to

He kissed her gently, gripped her hand, and watched her and her brother go off down the corridor. Closing the door quietly he stood thinking, rubbing his chin with restless fingers.

#### CHAPTER III

Vision Beyond

TTHREE o'clock that afternoon Douglas received a visiphone call from the Ophthalmic Council. It was the face of Dr. Grant Hurley, the chairman, who appeared

"The members have asked me to summon you to a meeting, Dr. Ashfield," he said cold-ly. "A matter has come up which is—er—rather outside normal ethics in the matter of optics. The meeting will be an extraordinary one and will be held at four this afternoon. You will make it convenient to be

on the screen.

present, please?"

It was not a request but an order.
"Of course, Doctor," Douglas acknowl-

edged, and switched off.

He had no lilusions. Mason Brooks had evidently kept his word and tipped off the council. By law they controlled all the oculists and ophthalmic city surgeons, who worked only with their permission, and

stayed within their prescribed boundaries.

It was good in one way, for it stopped the

inexperienced dabbler from injuring patients, but from Douglas Ashfield's point of view it was bad. Very bad! Nor dare he refuse to attend a meeting if he wanted to remain in practise.

So at four o'clock he was in the Board Room with the seven directors of the council and chairman Hurley at the head of the long, shining table.

"Dr. Ashfield, I am in possession of a special letter sent to me this afternoon by Mr. Mason Brooks, the Chief Physicist with the City Scientists."

Dr. Hurley laid the letter on the table,

"Were it from a lesser member of the community I might have ignored its contents, so amazing are they," Hurley continued. "But from a man of Mr. Brooks' standing, the matter at once assumes serious proportions. He declares that you are trying to persusde his sister, Miss Vera Brooks, recently blinded in an accident, to undergo an operation by which you can give her artificial eyes which

can see?"

Douglas smiled bitterly at the pedantry of
the man, the verbal groveling to a man worth

nine million dollars.
"The allegation is correct, Doctor," he answered briefly.

This started a hum of excited conversation round the table until Hurley's insistent, beating gavel silenced it.

"I can only presume, Dr. Ashfield, that you are joking," Hurley said acidly. "And I consider it very bad taste." "Gentlemen. I have created an artificial

eye," Douglas said, rather weary of having to repeat the details. "It can do everything which a normal eye does. It can give sight to the blind and thereby advance optical science a century. It can remove the biggest blight, barring death, that threatens human-

"It hasn't been done before," said Wilson, reckoned as the best optic nerve man in the States.
"That's no criterion," Douglas retorted,

looking round on the incredulous faces. "The not going to recall to your minds what men said about Watt with his steam engine, Bell and his telephone, Lister and his antiseptic. I think you are intelligent men, willing to listen to anything that means advancement. I can provide it—and prove it."

"Since you can prove it, we are willing to listen." Dr. Hurley answered expansively.

"How soon can you produce this proof?" "The moment I have operated on Vera

Brooks. "This is becoming a vicious circle," Hurley decided, ominous again, "We cannot permit

an operation on a woman, and especially one so high in the social scale, without the method and result being thoroughly considered beforehand. We, the Council as a whole, forbid such an operation unless you have first

submitted convincing proof." Douglas gestured impatiently.

"How in the world can I prove it until a human being has had the benefit?" he demanded. "To try it on an animal would not convince you. An animal cannot tell us if it can see, even though we can discover if it reacts as though it can. I well know that the Council always need sweeping proof, bevond a shadow of doubt. And the only way I can get it is by performing an operation

-on a human being-on Vera Brooks!" There was a silence, then the chairman

cleared his throat noisily. "If you could perhaps find somebody less

important?" he suggested. "Maybe an itinerant from the city's lower quarters? A blind worker, maybe? After all, the financial resources of Miss Brooks and her brother have a great deal to do with the welfare of the city as a whole."

"If, as you suggest, I were to use these artificial eyes on a beggar, it would take me ten years to make another pair?" Douglas retorted. "Do you imagine I would leave Miss Brooks, my future wife, in her present condition that long? No, gentlemen! In any case she has given her own personal sanction to the operation."

T WAS plain Dr. Hurley was not

"Prompted by the clusive hope of regained sight, no doubt," he said pompously. "I am sorry, Doctor Ashfield. Either you operate on an unknown and show the results, or we cannot be interested. If in spite of everything, you proceed with an operation on Miss Brooks, you will be precluded forthwith from practise, and that, I am afraid, would terminate the career of a very clever onhthalmic surgeon."

"Even if Miss Brooks herself asked you to let me do it?" Douglas asked despairingly. "Even then," Hurley replied adamantly. "Miss Brooks is in no position to make a decision. She is a drowning woman clutch-

ing at a straw. In matters medical it is the Council not the individual, which makes the decisions these days. That is the law, you know." Douglas hesitated for a moment, his bitter

eyes glaring at the stony faces. Then without a word he pushed his chair back under the table and left the room. Ten minutes later the visiphone was ring-

ing in the Brooks' rebuilt residence, and the manservant answered. After a while Vera's face with the dark glasses appeared on the viewplate.

"Vera? Doug speaking. I'm going to operate. Your brother has done his worst with the Ophthalmic Council and they'll disown me for it. I'm risking that-if you'll risk your life?" "Doug, you know I will: I believe in you

and always shall. I meant it when I told you to name the day." "All right then. This evening. I have two

expert nurses I can call upon. I'll perform the operation in my own surgery. All I want you to do is go without food from now on. Can't undergo an operation on a full stom-

convinced.									[Turn page]
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ach. I'll call to see you on the pretext of taking you for a drive, then Mason won't suspect—I hope."

"I think he'll be out anyway," the girl answered. "He's hard at work in the city laboratory after hours trying to reshape that idea of his which got us into this mess. When it's over, Doug, the Ophthalmic Council will

it's over, Doug, the Ophthalmic Council will just have to believe!"
"Yes," Douglas had a mental vision of Hurley's beefy, pompous face. "Perhaps.

Anyway, I'll be with you at seven this evening."
"Seven it is," Vera agreed, and switched

off.

Promptly at seven Douglas was at the
Brooks residence. As the girl had anticipated
her brother was absent, and probably would

be until a late hour.

Douglas helped her into the car and, driving it himself, he threaded his way through the city streets towards his own suite in the Cosmopolitan Building.

. "Cheerful?" he murmured, as the girl sat beside him.

"More than I've ever been since I became blind," she said. "At first it seemed that there was no way out. I'd forgotten all about that talk we had at the Golden Comet about artificial eyes. But now— Oh, I know you'll succeed!"

"I've got to," he said grimly. "Not only because you are the most precious possession I have, not only because I want you to be a happy, carefree girl again, but because of what success will mean to humanity in general. But you must understand, dear-est, that there is the risk of failure. I have to be fair with you on that upoint. In any event, Mason will no doubt kill me if I fail. The surre of the I'm sure of that.

"I'll take my chance," she answered quietly. She added rather plaintively, "I suppose I can't have something to eat? My-sides are

nearly touching."

"All the better—and you can't have a bite,"
Douglas said firmly. "I'm a surgeon now,
not your fiance. Well, here we are."

He ran the car into the big private garage, helped the girl out and guided her fumbling feet up the steps and so through the hall to the elevator. Once in his office he took her straight through to the surgery and settled down in a chair. The two nurses he had summoned caught his nod and one of them because.

began to remove the girl's hat and coat.

While they prepared her for the operation.

he went into his private office and stood for a moment with his fists clenched and his eyes tightly shut.

. "All I ask is the strength of my hands, the infallibility of my instruments, and the judgment of posterity," he breathed. "Grant me

that—no more."

His brief prayer over he straightened up and went back into the surgery. As he weathed his hands and snapped or rubber gloves, the girl sank into unconaciousness under the anesthetic. He came to the table at last, stood looking down on the eyeless sockets, at the shaven scalp. Then he took the instrument the leading nurse handed to him, and been the share and the share scale.

FOR an hour he labored—for two hours, struggling under the hot glare of the shadowless lamps. Now and again as he worked, he caught the astonished eyes of the nurses above their face masks as they saw him insert and connect the artificial eyes. He could see they were incredulous.

The eyeballs themselves he never touched. The platinum claws did the work, handlightern as gently as if they were thistedoup, Little by little he progressed, knitting the optic nerve to the appropriate portion of the brain, making new nerve connections, reknitting the blood vessels. In two hours he was feeling tired but the

work was done. The girl's skull had been restitched and the scar coated in fast bealing astringents. She lay now in the soft air bed adjoining the surgery, a bandage roundher head and eyes.

When he felt fit enough after his labors towards two in the morning—Douglas crept in to look at her. The nurse was dozing in, the chair by her side. The girl was breathing regularly. Her temperature and pulse were normal. Douglas gave the nurse a nudge and then went out again to his private office to sit down and swait the dawn.

This time it was the nurse who awakened him. He got into his cost hurriedly and walked through to the bedroom. The girl was fully conscious again, and apparently in good spirits.

"Doug?" she asked quickly, recognizing his footsteps. "How am I getting on? I still can't see anything."

"You're not supposed to, dearest." He gripped her hands. "You are all bandaged up. But you're doing fine. Think yourself lucky you don't live in the Nineteen-thirties or this operation would have taken months of convalescence. Surgery bas upped a bit since then. How's your appetite?" "Last night my sides were touching. Now

they've stuck together. Do something,

"Okay, Nurse!"

"Okay, Nurse!"
The woman came in and Douglas gave his orders. He turned back to the girl.

"While you have your meal I'll freshen up a bit. Then we'll see how things are. By that time you should be able to stand it."

"It'll be all right, Dong. I know it will."
He patted her band and left her. He had
hardly reached his office preparatory to getting a shave when he heard the door of the
reception office being thumped good and
hard. He went out to it and found Mason
Brooks on the threshold, his face white with

ill-controlled fury.
"Where's Vera?" he blazed, striding in.

"She's here?"

"Yes, she's here," Douglas assented quietby, shutting the door. "And take it easy." "Easy! That's a fine thing to tell me! I've been at work all night and I arrive home to find my sister has been absent the entire time, ever since you called for her last evening in your ear. What the devil have you.

been doing? Where is she?"
"She's eating her breakfast at the moment.
There's a nurse with her, and has been all

night."

Douglas took off his coat leisurely and turned to the mirror. He had just picked up the electric razor when Brooks caught his arm and whirled him round.

"You can't treat this matter as of no consequence, Doug," he snapped, his eyes gitttering. "You're hoping to make that experiment on Vera, in spite of all I've done to try

ment on Vera, in spite of all I've done to try and stop you."

"And in spite of your very ungallant efforts with the Ophthalmic Council," Douglas retorted. "I'm not making the experiment, Mason. I've already made it! I performed the operation last night and Vera still lives.

and is well."

The physicist perspired visibly in sudden relief. He took off his hat and sank into a chair. Then he passed a hand over his

smooth dark head.

"I'm—I'm sorry," he said agitatedly. "I got all worked up. It—it was for Vera's sake, of course."

"Of course." Douglas fan the razor down his jaw.

as "Can she—see?" Brooks questioned it abruptly.
"That I don't know yet, but we'll find out

"That I don't know yet, but we'll find out when she's had her breakfast."

There was silence between them for a while. Douglas finished his shaving and washing as the scientist thought things out.

"Better get a grip on yourself," Douglas suggested, half smiling. "Let's see how things are. Shall we?"

"Yes. Yes, of course."

ASON BROOKS went into the girl's at his sister fixedly, but said no word. Since he evidently did not wish to disclose his presence, Douglas did not do it for him. He dismissed the nurse and took hold of the girl's hand tightly.

"It's zero hour, Vera," he said tensely.
"Are you ready?"

"Yes." Her voice was subdued. "I'm

ready.

He reached behind her head, unfastened the clip to the eye bandage and began to unravel it. As the last ahred fell away, Brooks could not help a little gasp of smazement at the sight of the beautiful eyes in the formerly dead sockets. They were big and gray, even pretier than the girl's own had

There was a long, deadly silence. Douglas could feel himself perspiring freely under the suspense. Brooks leaned very slightly forward his eyes sharpened to needle points.

Slowly the girl turned her bandaged head. She looked above, to either side of her. Then she fixed her eyes wonderingly on Douglas. He stared back fixedly—but to his astonish-

ment she clapped her hands to her face.

"What?" he asked desperately, catching her shoulder. "Vera, what is it? What's wrone? Can't you see? You must. I tell

you!"
"Yes—yes, I can see," she answered breathlessly, lowering her hands again. "I can see you—and Mace over there—and this room. I can see myself. But—but I can see two things at once! Nothing looks solid any more. I can see through the walls. There is a crazy looking landscape out there, welrd-ly vast. And some ruins of some sort—like.

cities. It's—it's awful!"

She covered her eyes again and Douglas stood looking at her in bewilderment.

"Brain reaction maybe," he muttered. "Hallucinations." "More likely you've damaged her brain!"
Brooks declared hotly, crossing the room.
"Two things at once, man! Do you realize

"Two things at once, man! Do you realize she's delirious?"

He caught Douglas' arm. The way the two

men looked at each other was a prelude to blows. But the girl's voice stopped them. "Fighting over it isn't going to do any good—and certainly not to me. Try behav-

good- and certainly not to me. 119 behaving yourselves instead. Come here, both of you."

They hesitated a moment, then came to

the bedside. Vera had lost that expression of alarm now and instead was looking more puzzled than anything else. "At least I can see," she decided. "That

Taylogs I can see, see decided. That is something for which I shall be eternally grateful, Doug. But you've got to do something about this double vision if you can. Maybe you made a mistake in the lenses.

Maybe you made a mistake in the lense After all, it was your first attempt."

"Yes, it's possible," he admitted.

"Just what are your impressions?" Brooks asked, his anger cooling into interest. "Explain them in detail."
"Well I can see as far as the walls of this

room. Beyond them I can see New York spread out on all sides. In the midst of it, like a double exposure photograph, is some kind of landscape. It's deserted and seems to go on forever and forever. Same with the sky, too. No horizon. Endless—utterly endless."

The girl looked up at the ceiling, then jerked her eyes back again and blinked. "The sun's up there. But it looks differ-

ent. It's got curly things flickering round its edges and there's a blaze of white light behind it."

"Great Scott, the solar prominences and coronal" Brooks whispered incredulously. "Well-go on!"
"I can see through my own body," the girl

went on. "But not into it, if you understand. And although I can see through these immediate walls. I cannot see through the floor, that no not yet, I can see through the floor, down through this building, into the underground railway and sewage system, then deep down into the earth. Like lying in midatr over a colosal pit!"

Mason Brooks scowled in deep thought. First and foremost a physicist, the girl's impressions had arrested something in his mind. To Douglas, purely an oculist, the matter was alarming.

"We can't leave things like this." he de-

cided. "Rest until this aftermoon, Vers, and then you'll be fit to get up and dress. First thing I'll do is get you into the surgery and make an examination. Obviously you've got X-ray eyes. You shouldn't have them. I must have made a mistake somewhere in those lenses."

THE girl closed her eyes and gave a serene smile. "There, that's better. Now I can't see any-

thing at all."
"Did you say something about cities—
ruins?" her brother asked presently.

She opened her eyes again and regarded him queerly. It was a rather unnerving stare she gave him, a perfect example of looking

straight through him.
"Yes, I did," she assented. "They're behind you. It's mixed up with New York's

buildings somehow. But there are ruins on a sort of rough plain."
"Humi" Brooks said, and patted her shoul-

der. "Okay. You just close your eyes and take it easy. We'll discuss this later. And don't say anything to the nurse, either. You may have accuired a gift."

The girl shrugged and closed her eyes again. Douglas gave her a final puzzled look and followed Brooks from the room. The nurse went in and took over her duties again.

In the reception office the physicist rubbed his unshaven jaw thoughtfully. "You're a man of optics, Douglas, What's

your verdict?"

"I must have made an error in the formula somewhere. Or else synthetic material doesn't

react like normal tissue. That's the only explanation. Given time I could probably right it. Or even the use of spectacles might cut out that distant superimposing wavelength, perhaps."

Brooks gave a grim smile.

"I've other ideas. I'm beginning to think that you have all unwittingly unlocked a closed door. My sister isn't looking through things, but into things. If she could see through things, in the fashion of X-rays, she would simply see all New York and the ground as though it were glass.

"But apparently she doesn't. Only at very short focus can she penetrate a wall. Beyond that, she sees an entire second landscape. Broken down cities, solar prominences and corona, a sky and plain which go on forever, in a straight line. To me, as a physicist, that hints at only one thing-the fourth dimen- w

sion!"
"What!" Douglas yelped. "You're crazy,

man,"
"Maybe," Brooks shrugged. "But remember that the greatest discoveries of science are often the outcome of the sheerest accident. It's only a theory yet, and I've got to think about it." He glanced at his watch. "I'm going home for breakfast and a freshen up. I'll be abok here this afternoon and we'll

go into the thing properly."

He strode to the doorway, then half way through it he paused and looked back.
"Sorry I blew up." He grinned cynically.
"Maybe this will have justified your work

after all!"

#### CHAPTER IV

#### Dimensional Possibilities

NUD-AFTERNOON the girl was quite able to be up and about. Douglas' examination satisfied him that the most modern of restoratives had dope their work and that except for her peculiar eye trouble and the wig she was wearing until her hair

grew again, she was about normal.

At three o'clock Brooks arrived, as immaculate and keen as if attending a science convention. From the expression on his leanly-cut face, he had been doing a good

deal of thinking.

The girl herself was in difficulties, so she said. She seemed half afraid to walk about for fear she would fall through the floor. As she moved she dodged invisible objects at times. To the two men watching the effect

times. To the two men watching the effect was serio-comic. "We'll see what's wrong anyway," Douglas decided, leading the way into the surgery.

"Take a seat, Vera."

She sat down in the padded chair amidst the optical instruments and her brother stood with his hands in his trousers pockets, studying her. Douglas drew up the big ophthalmoscope and then switched off the lights.

"While we are in the dark, and before I start to examine you, what do you see?" he asked.

"I'm not in the dark," she answered surprisingly. "I can see a sunlighted plain all round me, very clearly within the square which is this darkened room. But beyond it. where the sun is shining on New York, the vision is doubled of course."

"This gets better as it goes on," Douglas muttered.

He switched on the minute probing beam of the ophthalmoscope and the spot of light settled on the girl's left pupil. Through the testing lens Douglas peered deep into the artificial eyes he had created, at the redness of the retina at the back, at the edges of

the artificial pupil. .

He then did the same for the other eye.

increasing the light power until the girl complained that he was hurting her. Then he switched off and drew back the window shades.

"Every reaction perfect," he declared, baffled. "There is not the least reason why you should see two things at once. Everything ought to be normal." She shrugged.

"I'm sorry, but it just isn't."

"And I'll tell you why," ber brother aid slowly. "I think, Doug, that the fault lies in the artificial cornes you've made—the front surface of the eye. Any oculist know, or a layman too for that matter, that a fault in this clear membrane, can produce quereffects. The most common is astigmatism." If the corne is curved in different directions of the control of the

tions, the rays of light in different meridians can't be brought into focus on the retine except by an irregular strain on the muscles. Objects therefore look distorted and out of place. Now in this case you have an artificial comes which might quite easily be several degrees out of true focus. The effect is not just a distortion, but an ability to collect light waves which no normal hu-

"In a way then, you have provided Vera with a sixth sense. X-ray eyesight exists in some people—and they are usually on the stage or in sideshows—but this is something more. Something wonderfull it is the recovery of a sense we must all have possessed at some time in the past."

man eve can see.

"How do you make that out?" Douglas demanded.

"By the fact that a human brain can still work unharmed with eyes like this attached to it. Since it does not cause any pain or damage, it proves it is a sense which is not—

er—unaccustomed."

"All this talking may be interesting to you two experimenters, but I'm still living in a double exposure world." Vera objected. "I

see I begin to think the matter is no longer want it put right," "Let me finish, Sis." her brother insisted, in doubt.

going over to her. "Twe been thinking about this business-thinking hard. Tell me something. As you move about does your vision of this other world alter too? As though you would perhans have covered a certain

distance in it?" "Yes. I seem to cover the same distance

there as I do here." "Good! That means that that other world actually exists and is not just a figment of the mind. I believe that you are looking into nothing else but the fourth dimension. Remember that I have studied these things-

planes of existence, interatomic spaces, and so forth." "Fourth dimension!" Vera ejaculated, startled. "Good grief! But-but that's Time,

isn't it? Or am I wrong?" ER brother waved his hand.

"The fourth dimension is not Time," he assured ber, shaking his sleek head. "In . fact nobody knows exactly what it is, although there are numerous theories. As explained in geometry it is an infinite extension in length and breadth whereby both states are unbounded. There are no curves, as we see them. Eddington described it as Past, Present, Future, and Elsewhere. Think

of it this way. "A bus is moving at twenty-five miles an hour, forward. A man is going to the upper deck of that bus, upward, while the bus is going forward. Four states are involved. The man goes upward and forward simultaneously at differing ratios of speed, yet both occupy the same instant in time and space. That's an everyday conception of the fourth dimension

"Then it's too much for me!" Vera declared flatly

"Well, it's not surprising," Brooks shrugged. "Anyway, this land you see must lie right in this very space we occupy, but nobody has ever seen it before because they have not had the eyes with which to do it.

It is not an impossible thing,

Matter, as we know it, is mainly composed of empty space. Unless we accept that Nature is incredibly wasteful with her material we have to admit that there must be other planes-or one other plane, the fourth dimension-lying in the empty space between. That is, in the space interstices between atomic systems. From what you can "Then where does all this get us?" Douglas

"We may be at the beginning of an amazing trail," Brooks said slowly. "For years I have experimented with solids into solids, as you know, and now because of a fluke in these artificial eyes you've given this scatterbrained sister of mine the power to see into the very spaces which I have tried to pene-

trate. From now on our journey is into pure science." "Then-then don't I get my eyes put

right?" the girl asked anxiously. Not until you have been of immeasurable service, anyway," Brooks answered. "You've been a pretty useless member of the community up to now, but here's your supreme chance to advance science." He took her arm as she got up from the chair. "Now, you spoke of a ruined city. How far away is it?"

She turned and looked towards the door side of the surgery wall.

"Over there, about two miles. Why?" "You are going there to examine it."

"Oh! How?" "I'll show you. Come on."

She put on her hat and coat and between both men was led downstairs and into the street. Here, amidst the people on the sidewalk and the swirl and bluster of traffic she drew back nervously.

"I daren't go forward!" she insisted, frightened. "It's all too horribly confusing! You're all right," her brother told her

calmly. "Close your eyes if you can't stand it. Now, where are the ruins?" "Behind that stereo-theater over there."

"Good! Shut your eyes and hang on." In this manner she was escorted across the street until they came behind the stereotheater. Here was a stretch of wasteland

under ontion for future building. "How now?" Brooks asked eagerly.

The girl looked about her. "Much nearer," she announced. "We are apparently floating half way up a small hillside and the city is a bit further on, on the flat plain at the top of the hill-that way."

They followed the direction she gave and finished up in one of New York's expansive parks. Here there were open grounds and trees anlenty.

"I'm amidst the ruins now," the girl said, as she looked round on the trees and the distant people seated on benches. "There are the remains of buildings here, crumbled into masonry." "Can you touch this masonry?" Brooks

asked, thinking, She waved a hand in the air before her.

"No. My hand goes through it." "Which shows you are still in three dimensions as much as Doug and I are. We are standing on this ground in this plane. That is why, to you, we seem to float in midair on the other side. Okay, you see ruined buildings. Anything else?"

#### ERA shuddered.

"It all seems to go for such a long way," the girl answered, awe-stricken. "Endless expanse. These city ruins extend over a tremendous distance-nearly as much as New York itself. It might take me months to explore it all. And remember that I can't go through walls or doors. Though I can see the outside of ruins I cannot see into them, unless one wall be down."

"I realize that." Brooks nodded. "Anyway, you have come across some immense scientific secret of which we have never known, and which no other person but you can even see. What we do now is to keep peside you while you explore. If you find

anything at all important, describe it in detail " Vera nodded rather mystifiedly and walked

forward. And it was the beginning of daily visits to the park. By degrees Vera forced herself to become accustomed to her disturbing dual sight and finally was able to move about, when necessary, without an escort. To the outer world, and the press. for the newspapers were hot on her track, she pretended to be half blind and slowly recovering from an operation.

Those were her brother's orders and they certainly killed Douglas Ashfield's practise stone dead. The Ophthalmic Council struck him forthwith from the register. But he was not embittered. The wonder of the thing he had fortuitously created fascinated him.

Every dinnertime, every afternoon, or in the light evening. Vers walked in the park with her brother and Douglas, always in some different area of it. The beauty of the investigation was that nobody knew what they were up to. It simply looked, to keen newshounds, as though the unfortunate blind heirtss was taking her usual constitutional.

Then, three months later, in which time the girl had about covered every foot of that enormous, deserted other-world city, she made a discovery. Amidst the crumbled walls of one huge building were machines, so perfectly made and of such indestructible material that they were still useable--if only they could be reached.

"Describe them," Brooks insisted, when he first heard her mention the machines. "In absolute detail. I'll fit in the parts you don't understand."

So Vera did her hest. She was by no means lucid, being utterly ignorant of science in general and machinery in particular. But by interrogating her closely and insisting on

the smallest intricacy, her brother built up over the weeks an exact outline of the particular machine she was describing. Through the autumn and winter they were on the job, to the occasional surprise of the newshounds, and at length when the follow-

ing spring came. Brooks decided that the walks were no longer necessary. In his own laboratory, rebuilt in its entirety after the disaster of the preceding year, he explained wby. "I think it may be possible to enter this

plane, this fourth dimension, with our physical bodies," he said. "Then we can see for ourselves just what is going on."

"Sounds like a big assumption to me." Douglas commented. told you it's flat and uninteresting, with a

"And even if we could go there, there is nothing to see." Vera said with a shrug, "I've

them

lot of scattered ruins." "Listen to me," the scientist's sharp voice interrupted her. "You have described to me machines which could only have been made by a master race. The very nature of the machines and the invulnerable atomic structure comprising them proves that, If-as seems likely-a master race lived and died in a plane so close to us, it is essential to science that we find out everything about

"You have been very helpful in describing the machines to me, and one of themwhich I made you concentrate on exclusively-is undoubtedly electronic in basis. I've worked out the details from the facts you gave me and have reproduced the machine here. Take a look at it. Is it like the

one you described?" The girl studied it, wishing there was not that irritating background of land and crazy

sky surrounding it.
"Near as I can remember, yes," she as-

sented.

"Good! Now I'll tell you what it is. It's very similar to my own conception of matter-into-matter, only it possesses many refinements borrowed from that other-world design. With my knowledge of my own structure had also also have been sented destruction.

sign. With my knowledge of my own invention, helped by the essential details of this one, I've produced a device which should carry us into that plane. Here is how:

"Between us and it, there exists only one harrier, that of vibraction. If it were a solid harrier, light waves could not pass through the property of the prop

HE scientist took a deep breath and smiled at them.

"This machine, duplicated from the one Vera has described, alters the vibration of the body. It should, as I see it, cause us to fade from sight in this three-dimensions fade from sight in this three-dimension world and become attuned instead to the wibrations of the other one, just as a piece of ice melts from one form of solidity and partakers of the molecular state of water. Do

you understand?"
"I think I do," Douglas answered. "But it seems to involve a high degree of risk."
"I don't think so," Brooks answered. "This time it is not a case of a solid into a solid, but of three solids into comparatively thin

air. Certainly I am going to risk it, and I'm hoping you two will do likewise."
"Now?" the girl asked, startled.

"Well, say tomorrow morning. That will give us the rest of to-day to tidy up our business affairs and have a good night's rest. I have a vacation due me, so I can manage

"And my time's my own since my practise went to the bad," Douglas sighed. Vers was silent. Brooks' face grew im-

patient.

"Confound it all, what is there to hesitate at in such an opportunity?" he demanded.

"We're going to attempt something nobody ever attempted before. It's science that must

progress, no matter what our puny bodies suffer in consequence. It won't be dangerous. Just unusual."

"Unusual is right!" Vera murmured. She

shrugged. "All right, I'll risk it. I've played

with death many a time in a jet plane and a V-sixteen so this may be something new. How about you, Doug?"

"You don't think I'm going to lose my hold on you?" he said with a smile. "I'm staying beside you until your eyes can be put right and we can be married. Incidentally I'm working on that eye formula. I intend to find what produced the flaw, no matter what

"The flaw mustn't be corrected yet,"
Brooks said. "Well, you'll come?"
"Tomorrow morning it is." Douglas agreed.

#### CHAPTER V Wonderland

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ROMPTLY at ten the following morning, their various affairs in order for an indefinite time, the three met again in

Brooks' laboratory. He was looking as alert as usual, full of confidence that his experiment would be successful. "Just one thing I should mention," he said.

as he switched on the dynamos. "This mackine will been us in that other plans at a most one of the plans at the same of the plans at the same of the plans at the same of the

before we return."
"Suppose we snap back under a lake or a truck?" Vera asked.
"With your eyes to see in two places at

once? I think not. You'll be our infallible guide."
"Suppose I lose my dual vision when I

"Suppose I lose my dual vision when I get there?"

"I don't think that'll happen," Brooks an-

"I don't think that'll happen," Brooks answered. "We'll soon see, anyhow. As for other details—here are three packs of pro-

visions and small arms. Put one each on your backs. Finally, I have locked the laboratory door and nobody can enter until

summoned by me. That makes us safe. Now —are you ready?"

The girl and Douglas nodded. Stepping into the metal-plated area of the machine, directly under two long bar-magnets, they watched the next procedure. Brooks joined them and resched out to a switch. Immediately the power from the magnetic devices overhead made itself felt. It was the oddest feeling. Not painful exactly, but more like a tremendous stretching and

elongation. Before the eyes of both men, the laboratory began to shift crazily and seemed smeared in spirals and circles of black. To the girl no such evidence was present, but she could feel an intense dizziness trying to overcome her. Gazing as she was into two places simultaneously, and with an apparent widd now yawning under her feet, he effect was

nearly unbearable.

Then, for the two men at least, there came a feeling of enormous bouyancy. At the same instant the laboratory snuffed out like a candle flame and they felt themselves recling

backward.

Darkness. Then a blaze of light.

It took Douglas several seconds to realize that he was lying flat on his back on hard ground, staring up at a dull blue sky in

which stars and sun sailed together.

And what a sun!
Apert from its heat and brilliance, it was
oddly crazy. It bulged forwards somehow—
a flaming oval instead of a circle, edged
with flarting, twisting prominences while,

behind it into space, streamed the ghostly beauty of the corona. Slowly he got up, dazzled by his glimpse of the orb of day. He slipped a hand under Vera's arm and helsed her rise too. Brooks

raised himself to his knees, gazed round, then straightened slowly to his feet. "Amarently we did it." Douglas observed.

The physicist didn't answer. For the moment he was as astounded as Douglas by the sight of this strange land into which they had come.

in an awe-struck voice.

had come.

They were standing on a flat and dusty plain, cracked here and there in irregular lines as though moisture was the very rarest occurrence. The plain, broken at intervals by a low lying range of hills, but

went on and on until it was lost in incredible distance.

There was a horizon, perhaps. But it was so remotely far away—a mere smudge joined by the deep blue sky—that the flat sky and the earth never did seem to meet. In every

the earth never did seem to meet. In every direction this condition was the same and, for far as the two men were concerned, there was not the vaguest suggestion of the threedimensional plane from which they had come. In the immediate foreground were the city

ruins the girl had mentioned, showing their presence by the shells of once superb buildings, broken columns of stone, cracked and crumbling terraces. It had been very lovely here—once.

The air was windless and warm. In fact there did not seem to be any atmospheric there did not seem to be any atmospheric disturbance at all. A silence reigned, a silence so overwhelming that it filled them with vague fears. Not a cry of a bird, the rumble of traffic from any city, or the roar of a waterfall came to their ears. Just the deadly all embraring calm prevailed there, in the glare of that preposterous sun. It made all three feel strangely instantificant.

ROOKS found his voice at last and turned to his sister. "How's your vision now?"

"Just as it was," she answered. "The only difference now is that New York is superimposed on top of this, instead of things being the other way round. We are standing in a space just outside the laboratory, by the way."

Brooks shaded his eyes and glanced at the sun. Again he surveyed the infinity of landscane.

"Definitely the fourth dimension!" he decided at length. "It explains much. Science has always believed that we humans had a precious tiny segment of earth upon which to live considering our prolifects."

"T've read about the fourth dimension, of course, but things here don't seem to match up," Douglas remarked, thinking. "I've always thought we ought to be able to see around corners, experience wonderful changes in Time, and so on. All we can see is a rather fantastic interpretation of three

dimensions."

"That's to be expected," the physicist answered laconically. "We are not four-dimensional people, don't forget! Embedded in our brains is a long heritage of three-dimensional surroundings. Unless we achieve

four-dimensional sight and senses to match, the only changes apparent to us, are the infinite extension of length, this landscape, and the removal of certain flaws in light waves. If we were really four-dimensional we would no doubt see many other wonders."

Brooks glanced at his watch and Douglas and the girl looked at theirs.

"How about taking a proper look at those machines I saw?" Vera suggested. "I can take you straight to them."

Brooks was about to answer when Douglas suddenly called attention to a curious phenomenon eastwards.

"I may be wrong," he said, studying it,
"but it looks to me as though part of the
landscape has dropped out!"

Brooks stared also. Because of her double vision Vera did not concentrate on the task. Finally her brother nodded.

"Something queer all right," he agreed. "But it isn't a piece missing out of the land-scape. It's, water! A sea! Stretching away right to infinity and reflecting the stars so perfectly it looks as though the very nature of things has dropped away. The dividing line between sea and sky can't be detected. The strength of the mechanical ster. "It now and view the mechanical ster."

They began to inove towards it—and rereceived their first four-dimensional shock. In five minutes, though the see had appeared to be at least twenty miles away, they had reached its shore! The smallest of wavelets lapped on the silent, dusty sand which in

turn joined up with the dry, cracked landscape.
"Tidal, anyway," Brooks commented, staring along the shore line. See the mark where

it reached last time?"

"It's something to hear a sound other than ourselves." Vera whispered. "There's something about this great, empty, infinite land which is terrifying. It's alien. Weird!"

"What puzzles me is how the devil we covered such a distance in five minutes," Douglas observed, frowning. "Vera, you can judge how far we've moved by being able to see New York. What distance would you say we've covered from our starting point?"

"About a mile. But in this place it did look like twenty."
"Only one of the many things we may find

"Only one of the many things we may find odd here." Brooks reflected. "Light waves are probably responsible. Distance in our own plane is judged by light waves, of course, and in three dimensions at least their velocity is fixed at one hundred and eighty-six thousand miles a second.

"(G faster than that and according to Fitzgerald's Contraction a minus quanity is produced. Here, apparently, light waves move far faster than that. It is conceded by science that light waves might have no fixed velocity when operating in four dimensions, and the same law anolies to the

critical speed of matter.

"Anyway we are here, having literally covered twenty miles in five minutes. Inertia, speed, space. Time—they're all haywire in this place."

E BECAME silent again and the untermination of the silent again and the untermination of the silent and the silent and the the suck of waves in the flowing tide. The sun had moved visibly across the deep bus ten to the silent and the silent and the silent and still traveling westwards. After a was still traveling westwards. After a was the silent and the silent and the silent and the Vers gave a sudden cry and pointed towards a spot apparently two miles away.

"Is it the sunlight, my eyes, or am I just plain crazy?" she asked. "Can that be the hulk of a ship?"

The two men turned, startled at such an implication. But it was not the girl's double-vision playing her false. There was something there, catching the sun's rays. It looked like rotten timbers and the masts of a wrecked schooner.

"This is worth looking at," Douglas ejaculated. "Come on."
He hurried forward and, to the amazement of Brooks and the girl a yard or two behind him, be became, apparently, remote in a couple of strides. When they finally caught up with him he was beside the wreek.

They had to pull up short to save bumping into him.

"Going to take us a bit of time to get used to this light wave variation," Brooks said. He stopped taking as his interest centered in the half-buried ship.

Obviously it had been here for many

g years—but the apparent lack of elemental of fury in this dimension had prevented it is from losing much of its original form. Stout timbers were still recognizable, though dwarped in places from their nails. The master had collapsed half across the deck analyst the collapsed half across the deck analyst and the collapsed half across the deck analyst analysis and the collapsed half across the deck analyst analysis and the collapsed half across the deck analyst analysis and the collapsed half across the deck analyst analysis and the collapsed half across the deck analysis and the collapsed half across the d

"Kobenhaim," Vera said, shading her eyes and peering up at the prow. "I can just make it out, if it means anything." "Queer name," Douglas answered, prowl-

ing in the sand and peering at the age old timbers. "This ship's pretty ancient, too. A four-masted schooner, I'd say. They went out of fashion ages ago. But how the devil did it ever get into this plane?"

He turned, his question aimed at Brooks. But to his surprise the physicist had joined Vera and was staring up at the nearly oblicrated name on the bows. Gradually an as-

tounded expression came over his face.
"The Kobenhaum! Of course!" He snapped
his fingers. "It's Danish, one of the famous
missing ships on Lloyd's list! What were

the facts now?"

He frowned as he reflected, staring at the sand.

"As near as I can recall she was last seen close to the Island of Tristan da Cumba on January twenty-first, Nineteen twenty-nise. It was seen by the people of that island. After that she was never heard of again and there were no storms or accident to account for her disappearance. She just vanished."

"And turned up here?" Vera asked incredulously. "It's impossible!"

"It's not impossible because it's here," Brooks replied, with cold logic. "Say, this begins to open a field. There are lots of missing ships in the archives of Lloyd's the Cyclops, the Elfham, the mystery of the Marie Celeste crew, never satisfactorily cleared up.

"Then we have vanished airplanes which have gone into the unknown when over occams. Amelia Earhart, for instance. Then there have been ghost ships at sea where are to believe the famous legend of the Phijago Dutchmon. That effect could be produced by the mariners of the third dimension, and the produced by the mariners of the sea ship floating on a sea in the fourth dimension, and the produced by the mariners of the third dimension, and the produced by the mariners of the third dimension, and the produced by the mariners of the third dimension, and the produced by the

"We might find something yet remaining in the cabins of this wreck," Douglas suggested. "The ship's in fair order despite some forty years of time ravage. Let's take a look."

Brooks nodded promptly and Douglas led the way carefully up the creaking, and in places rotten timbers. They had no easy job, but finally they did reach the sloping deck. Vera climbed up behind them and they assisted her along the steeply slanting surface to the nearest companionway.

The steps had practically rotted away and the door at the bottom was missing. By dint of lowering themselves carefully they got down without mishap and, as they had guessed, found themselves in the captain's cabin.

If WAS untidy, the captains' cabin, but bothing more than that. The grand old seasoned timbers had withstood the test of years well. The cabin would have been orderly if it had been upright. As it was, the table lay overturned in a corner. The drawers had spewed from a rack in the wall while cupboard doors had flown open. The most natural thing of all was a still untar-

nished brass hurricane-lamp standing upright in its universal socket.
"This is uncanny!" Vera breathed, breaking the dreadful silence. "I feel as though we're exploring beyond death!"

"Put that way, we are," Brooks shrugged, scientific as ever. "No time to be squeamish. There ought to be a log somewhere. Ah! What's this?"

He dragged the heavy table on one side and from underneath where it had been rescued a heavy, dusty volume bound in black leather, its pages beginning to yellow at the edges. With some effort he balanced it on his knee and turned cracking pages.

"Log all right!" Douglas exclaimed eagerly, peering with Vera over his shoulders. "What does it say?"

"Give me time, man!"

nation-

Brooks flipped the pages. Up to January 21st 1929 the entries were quite normal The ship had obviously been carrying a crew of fifty naval cadets. On January 21st came the most surprising and significant entry of all:

January 21—Cannot understand how we have good off course during the night. The stars are different and the compass refuses to behave itself. In fact all the electrical apparatus is behaving erratically.

January 22—We have drifted on to a strange coests. It is quite uncharted. Horizon vastiy extended. Sun and stars shine together. No sign of land. January 23—The men have mutinied! Supplies cannot last forever. There seems to be no expla-

The entries stopped abruptly with a streak of the pen. Brooks closed the book slowly. then stood up with it under his arm.

"Somebow this ship passed into the fourth
dimension while sailing, without the benefit of apparatus at that." he said. "From
that premise we may assume that all other
lost ships have probably done likewise.
Planes too have usually vanished when over
great bodies of water. Of course, we know
that the vibratory rate is responsible for
the transition from plane to plane, and we

the transition from pann to plane, and, we may be made the many to that where is a perfect conflict or years and the many to t

"A small thing like a ship might therefore float into one of these pockets—as might an sirplane—and never get back, the current being powerful enough to shift the atomic makeup from one rate of vibration to another for all time?"

"Yes, I think it is the only possible theory. Oceans at best are mysterious, full of the unexplained. Strange lights are seen in them, St. Elmo's fire plays on the masts, weird electrical upheavals are common." Brooks sighed and stuck the book more

"Right or wrong, it's the only theory I can find. We're taking this book back home with us as proof. Now we'd better get outside again."

firmly under his arm.

#### CHAPTER VI

#### The Voice

ETURNING to the broken companionway they fought their way up to the deck again. It was just as they reached it that night descended with the suddenness of a fused lamp.

"Hang it!" Brooks exclaimed from the dark. "Can't be a scrap of refraction in this blasted plane. The light wave quirks are too thorough for my liking. You okay.

"Okay," she assented, rather drily. "I had the chance to practise being in the dark recently, remember. It's night in New York too," she added. "I can see the city lights."

"Wish I could," Douglas sighed wistfully.

"Be a comfort in this forsaken land."

They found their way along the deck and so back to the beach again. Here Douglas'

voice floated out of the void in sudden alarm. "Say, it's night! Do you realize that?" We started on this trip at ten in the morning and we've hardly done anything yet. Now it's

dark. That means that at least seven or eight hours have passed. I thought our vibratory visit was set for only two or three hours, Mason?"
"It was," the physicist answered, with a trace of uneasiness: "But then how is

one to judge? Time, space, our very bodies are different. For instance, if seven hour or so have gone by we ought to be hungry and thirsty, but we're not. At least I'm not. How about you two?"

Douglas and Vera were surprised to find

that they were not hungry either, and said so.
"Consumption of energy—bodily energy—
must be different while we work at a new
ratio, and therefore doesn't need renleish—

ing as fast," Brooks mused.

"You have an answer in science for everything, haven't you?" Vera saked irritably." "Personally, this place is beginning to scare the. I feel we are so horribly, completely alone. I can at least see into our own world, but it is only a shadowy plane which I can't touch. I feel utterly cut off. For you two it must be even worze because you can only see this awful landscape. Mace, are you sare well get back?" are saked anni-

"Yes, Yes, of course," he retorted "Mathematics prove, it."
"Mathematics! Last time you dabbled in math you forgot somethink. Remember?

That machine?"

"For heaven's sake stop worrying me," he growled. "We'll be all right. Come on, let's

growled. "We'll be all right. Come on, let's walk. Standing here in this silence with that old ship near to us is tearing my nerves to rags."

He turned and began to move. Douglas and the girl kept pace with him. They didn't talk any further. They felt too overwhelmed. They heard only the sound of those wavelets on the shore and the noise of their own feet crunching in sand. Not a vestige of a breeze, not the varuest hint of life was brought to them. The aching, end-

less quiet and nothing more.

Then, with a rather surprising suddenness, their way was lighted by the full moon. It came over the incredibly distant horizon so rapidly they could see it moving. It looked utterly unlike the moon to which they were accustomed, for it bulged like a mammoth silver egg.

"For some reason or other this plane gives you stereoscopic vision when you look at the sky," Brooks murmured, staring up. "Light waves again, I guess. But at least things up there are more or less normal.

The moon is in her right place and in her right phase. Stars are differently placed, though, and-hmm, that's odd!" He broke off and stared wonderingly.

"What?" Douglas questioned. For several minutes Brooks peered at the

sky, before speaking again. "That planet is Mars, and that one is Venus

-low down there. But they look different. For one thing Mars has no red glimmer, and Venus has lost a good deal of her high albedo."

"Albedo?" Vera repeated. "Light reflecting quality!" Brooks showed

impatience at her ignorance. "Now just why should they look different?" "Maybe they're not the right planets,"

Douglas suggested. The physicist meditated for a moment or

two, and then he caught hold of his sister's arm. "Vera, how does the sky look to you?" "Normal, praise be," she answered

"Though there are some new stars I can't account for, peculiar to this plane maybe. But the rest of the sky looks normal. Still it was the same way when I looked at it from New York."

ROOKS smiled with gratification. "Which shows the sky is identical in both places!" he declared in satisfaction. "Good! Then we have got Venus and Mars there, and they are different!"

"I'm more interested in returning home." Vera sighed. "The time keeps going on and we show no signs of getting back.

"We will!" Brooks seemed quite unconcerned. "Think of the amazing things we're discovering and try to use your brains a little."

The girl said nothing as they continued walking. Obviously his intense scientific interest in everything had blunted all his humane feelings It was perhaps half an hour later, as near

as they could tell with time and distance so inexplicable, when they found themselves in the regions of the ruined city. It stood

a pale and crumbled monument to vanished endeavor. "Plenty of buildings still standing," Brooks commented, glancing around in the pallid

moonlight. "Roofs are gone and the walls look sick, but we can perhaps take a quick survey."

"We ought to feel sleepy," Vera said, oddly. "But we don't."

"And until we do we'll keep going," Brooks decided. "Let's see what we've got in here." He led the way across crumbled stonework

to the nearest half-demolished edifice and pushed on the massive metal door. Under the pressure it collapsed almost immediately. not because the lock had perished, but be-

cause the supporting stonework fell to the ground. Beyond was a vision-an amazing vision.

lighted by the moon shining through the clear space where the roof had once been. There was the shell of an immensely long building, the walls towering up to perhaps a hundred feet, the metal shields still in place across the open spaces where windows had been. It was only by degrees that the trio realized that there were machines here, covered in the dust and chippings from the

fallen roof. "This the machine hall you saw from our plane. Vera?" Brooks inquired, surveying it. "No. In any case it can't be. I couldn't see through walls, remember. The place I

saw was a total ruin. This is another one entirely." "Interesting, too, unless I miss my guess,"

the physicist muttered. He stepped across to the pearest machinery and stood looking at it. Finally he knocked the dust from it with his haversack and

looked more closely. "Some kind of power generator, near as I can tell," he commented finally. "Light isn't too good. You two take a look around and see what you can find,"

They went off together and thereupon Brooks proceeded to forget all about them. His scientist's soul was lost in the contemplation of these gigantic scientific engineering wonders wrought by a race of people now utterly vanished.

Brooks found all kinds of conjectures passing through his mind as he went from machine to machine and pondered upon their diversity and complexity. Who had done all this? Four-dimensional beings? Were theyperhaps present and yet invisible? Somehow, though, this theory did not seem to fit.

· By degrees, as Douglas and the girl explored the further regions of the hall, Brooks kent discovering huge dynamos of queer outline, transformers, great banks of resistances, all manner of electrical equipment of a high order, together with many things he did not understand at all.

Gradually it became clear to him that every one of them was so designed as to face a truly enormous creation like a tower rearing up to the sky from the very center of the hall. At the top of it, glinting in the moonlight, there appeared to be a massive

He frowned, an astonishing thought crossing his mind. There seemed to be no connection from one machine to another, yet each machine faced this tower. Surely not by coincidence? Perhaps transmission of power through radiation? Akin to radio? It was the dream of engineers in his own plane. Here, maybe, it had been accomplished. But the idea demanded a huge step from conjecture to proof. He'd need the daylight to make sure, anyway,

He was studying the tower pensively when he turned and looked round for his sister and Douglas, intent on getting their opinions. To his surprise they had vanished, but almost immediately he saw where. A door was leading into another hall beyond this one.

URNING, he strode towards it, entered yet another roofless building and beheld massive long disused telescopic equipment soaring towards the skeleton of a dome which had once been covered. He had hardly time to take in the fact that he was in a kind of observatory before an incredible feeling stole over him. At the same moment Douglas and Vera, quite nearby, must have felt it too for they half turned in alarm, then stood motionless.

It was an intense feeling of constriction, of being forced into involuntary paralysis. For a moment Brooks suspected that they were about to be returned to their own plane and hugged the Kobenhavn log the tighter to him in readiness. Then he realized that the sensation had no kinship to that overdue metamorphosis. Instead it was an iron rigidity which settled. Neither he. Douglas, nor Vera

could budge an inch. Then, as they waited tensely, they heard something. It was like a voice, and yet it

was not a voice. It made no actual sound in the deserted spaces. Instead it crept into the senses and made itself understood as supertelenathy.

"You have crossed the electric eyes, my friends, and now you are to experience the unforgettable! Your ability to be here in this plane makes you worthy of it. Prepare yourselves for an explanation."

Every word, every thought impulse-since that was what it really was-was utterly distinct. Vaguely, Brooks understood. He, or his sister and Douglas, had crossed an invisible radiation somehow generated even after all else had stopped. It had set hidden scientific powers working. Telepathy. The absolute grip of mind and muscle. No matter how much they might have wished otherwise they were compelled to obey the science of a race long gone.

Slowly a sense of being lifted out of themselves stole upon them. They were compelled not only to see events but to feel that they were a part of them. And yet, paradoxically, they were distinct and separated from the actual moment by untold ages.

#### CHAPTER VII Vision of the Past

RADUALLY things grew dark-even for Vera with her double vision. She would have cried out in terror only her muscles refused to work. Brooks, the most scientific, surmised what was happening, that their brains were being deliberately blacked out to everything except the impressions which were shortly to reach them. For a while there was nothing. He was standing, like Douglas and Vera, utterly motionless staring into a void. There was no sound either. Even the four dimensional plane itself had not seemed so utterly quiet as this. It was death in life.

Then again that Voice which spoke in pure thought, which was clearly understand-

<sup>&</sup>quot;You cannot attempt to understand what

you have seen around you. Not yet. But if you ever do you will have earned the right to possess the heritage we have left you. What you are about to experience is purely a record of events left in readiness for the day when you outcast people of the Third Plane would find your way back to your

real heritage. "We realize that in the very act of finding your way back you have proved yourselves scientific enough to understand at least some of the mighty heritage which is yours. I am not a man, not even a Voice, but a mentally recorded series of thoughts transmitted by a machine, the deep complexities of which you may one day understand. Now, by sensory preception you shall have an

explanation. Suddenly the darkness was relieved and the paralyzed three gazed in wonder on a scene in which they seemed to be involved. They were looking into a gigantic hall of stone, is arched roof supported by pillars, its windows wide and giving onto a view of the eternal landscape so peculiar to this

plane. It was brilliantly lighted by both sunshine outside and concealed lighting inside. The three were apparently at the rear of the hall. looking over the heads of a multitude of seated people. They were people just like themselves, except for one thing. They had queerly fashioned eyes. Instead of a pupil and iris there was an organ made up of four

The people consisted of both men and women, serious-faced, all of them strangely attired in the briefest of costumes and looking towards the far end of the mighty hall where four men and women-egain with faceted eyes-were seated on a raised dais looking down on a separate crowd of people numbering maybe a thousand.

facets!

It was a fantastic vision indeed and so utterly real that it was hard to credit that it was only an incredibly accurate sensory

impression of an event in long forgotten Thoughts which sounded like voices floated

across the huge expanse.

"You men and women, led by Agra Libaflix have been found guilty of the charges brought against you. The chief charge is that of subversive activity against the State and Conclave of Scientists. One thousand of you have been found guilty, and by the law each and every one of you must suffer the same

fate as your leader, Agra Libaflis."

There was an uncarthly silence for a "Long ago such activity was punishable

by death," the message went on. "But science decided that such a law was barbaric and served no useful purpose. It fails to train the criminal mind to right itself. In its place banishment was substituted, usually to some far part of our world. We, too, have decided on banishment for you, but one of such utter completeness that you can never return, no matter how much you may wish to do so. For the crime of trying to overthrow Science no punishment can be too stern.

"We, the Supreme Judges of the Scientists, have decided that the entire thousand of you shall be banished to the Third Plane. We know that it exists as a material segment of our infinitely vaster world, a kind of desert island of matter. In the Third Plane you will be shorn of all the powers you possess here. Freedom of movement will be limited. You will find your world very small indeed.

"When you enter it, it will be without human life. From what you know of science you can try and build anew, start a fresh race indeed, if you wish, since there are women among you, some of you already mated.

"But to be sure that you can never return here, your eyes will be stripped of their outer lenses, that wonderful work of Nature which enables us to see in four dimensions! You will, as it were, become four-dimensionally blind, able only to see in three dimensions. Amongst the women of you, further operations will be made to ensure that whatever children there may be will, likewise, possess no trace of the eyes you have here. That is all!"

PENHE SCENE faded, to be presently replaced by another view of a long operating theater. Since the surgeons and tables, with the victims thereon, seemed to recede to infinity, it seemed as if the entire condemned thousand were present here, undergoing the eye and-in the case of the females -the internal operations of which the Judge had snoken. It was a vision that lasted only briefly, to be replaced by a scene in a titanic hall of machines.

Here again the thousand were present. within the area of a huge magnetic instrument, Brooks, staring at it, realized it was a gigantic edition of the very machine he himself had made from Vera's, description. Perhaps it was the identical machine itself. Douglas, for his part, was not so interested

Douglas, for his part, was not so interested in the machinery as in the eyes of the bamished ones. He studied them as closely as he could. Then, slowly, the great crowd of neonle hegan to melt and finally disappeared.

The laboratory was empty.

Very gradually blackness returned, and

with it the Voice.
"You have witnessed what happened, my

friend—how the remote ancestors of your Three-Dimensional Plane came into being. But for their transgressions there would never have been a populated Three-Dimensional Plane.

"You know that there is since you have come from it. By rights your heritage is this world of four dimensions, which you can never fully appreciate until your eyes achieve again the four-dimensional power they should rightly possess.

"We surmised that, as time went on, humbled remote descendants of the Banished might find their way back here. For that reason we decided to leave them these machines and the chance to begin again. Master these machines behave as true

scientists, and you can begin again.

"We, by the very law of evolution, have
advanced so far up the scale that we no
longer need machines and so shall depart
this planet. You have seen, my friends. Now
you must reson—deeply!"

The Voice stopped and the awful blackness gradually became tinged with gray. Slowly, like a vell litting, the obscurity gave way to the ruined observatory again with its cold moonlight. All trace or sign of the vision of the past had gone.

By degrees the paralysis abated, and

Brooks moved stiffly, clutched his log book again. He went over to where his sister and Douglas were rubbing their aching limbs painfully.

paintuny.

"Did that really happen?" the girl whispered. "Or was it just a dream?"

"No, it happened. We have to realize that we are dealing with stupendous scientific power in this place. So much was explained in those few brief scenes, practically the whole history of the human race in fact. Or didn't you comprehend that?"

"I understand one thing," Douglas said.
"In regard to that eye operation, I mean.

The normal four-dimensional eye is made up of four facets, whereas ours is only a single lens. After the Thousand had been operated upon, their eyes looked like ours. Only they had a large fleshy piece left in the nast corner where the four-dimensional surface lens had been cut away.

"According to the science of optics, that fleshy bit—which every human being has to day in the nasal corner of eye, but which of course has shrunk a good deal in the course of time—belongs to a time when we were saurlans and had to have an extra membrane for underwater work." Most biol-

ogists believe that.

"It's called the pikoa semi-lusaris, by the way, and sometimes 'the third eyelid.' What I know now is that it never had anything to do with a saurian ancestry but with a four-dimensional one. The missing section must have been present in the children of the Banished, and so on down through the ages to to day."

"Good?" Brooks complimented him. "Very good. That part of the revelation being optical you would of course grasp fully—but did you understand anything else?"

"Not clearly," Douglas confessed, and Vera beside him shook her head in the moon-

light.
"To me," it explains everything in our

history that needs explaining," the physicist and, "It shows that there is no real connection between man dape. The two are distinct breeds. Human beings were placed doubt the normal form of life, the kind of life that should inhabit the crampel confines of three dimensions. That is why the Missing Link has never been found. It explains too the marvelous science of the early races."

To a second or two Brooks paused, to allow his listeners to absorb these facts. The low his listeners to absorb these facts of the low beautiful to the low beautiful to the low beautiful to the low beautiful to listeners but degrees—with each fresh signed of evolution—knowledge, out off from the source and which would be bound to affect them adversely, physically and mentally—would begin to fade uttil at last the people became almost debased. Then, alowly, they began the upward wing again and so evolved to the covince to the control of the control of the control of the low beautiful the control of the low beautiful t

<sup>&</sup>quot;Yours's A.B.C. of Biology, Chapter 4, 1934 Edition.

the present day with the real history lost in the mists of antiquity, or at the most more

garbled legend.

"Now we know why there are cities of surpassing wonder in the Sahara regions, why El Dorado must really have existed, why there must actually have been an Atlantis, withal overwhelmed by a catastrophe. They were the cities of the Thousand, and we are their successors, not ever yet elever enough to approach the genius they must have possessed."

"Then we didn't spring from amoeba?"

Douglas asked.

Douglas asked.

"No. Not in the Third Plane anyway. The ape probably sprang from that Amoeba, fish, saurian, dinosauria, ape. Homo sapiens

is a distinct but mighty breed."

There was an obvious pride in Brooks' voice as he claimed his connection with mankind which sounded rather odd in the windless silences of the observatory. Douglas glanced at the girl as the physicist spoke

again.
"Do you comprehend what we have here?"
he breathed. "All around us? In these
machines there is power such as man never
dreamed of in our little circumscribed three-

dimensioned world!"
"But you don't understand any of it,"
Vera pointed out, sensing the ambition in

his voice.
"I could—given time."

"That Voice, or whatever it was, said that this is our rightin heritage," Douglas musch. "In that case everybody in the world ought to share it. It is theirs—not ours. We could make a grand thing of humanity's future if this plane could be resurrected. In time 1 might even find out how to make eyes that are four-dimensional and thereby we could enjoy our full legacy."

"Yes, that's true." It was plain deep thoughts were going through the physicist's brain, thoughts other than those which prompted his next question. "I just wonder where these four-dimensional people went? And why?"

"We may find out in time," Douglas answered. "We-"

Whatever he was going to say was lost, for all of a sudden the three of them felt a vicious tingling sweeping through their bodies. So swiftly did it come that they had hardly time to realize what had occurred, they found the ruined observatory fading from before their sees.

Darkness. A flash of light that seemed to sweep from infinity.

All three of them fell heavily

Dazed, they looked about them. They were lying on their backs on a deserted sidewalk, a street lamp casting a soft glow over their heads. Silently a car slid past towards the

city center.

"We're back!" Vera cried hoarsely, getting
up. "Oh, thank heavens for that! We're back

in the city!"
"Can you see Beyond?" Brooks demanded,

catching her arm.
"Yes. It's the same as usual. But it's
dark of course. What do I care anyway?"

dark, of course. What do I care anyway?"

Vera shrugged. "We're back in our own
plane, among our own people."

"Confound it!" Brooks exploded abruptly.
"That log book. It's gone!"
He searched round for it desperately, and

Douglas and Vera helped him. Then he finally gave a sardonic chuckle.
"Never mind. I should have known. It

isn't adapted to the vibration of this plane, so it just couldn't come any more than tomorrow can be a part of yesterday. My word will have to suffice."

"There's a police officer down the road there," Douglas murmured. "With these provision packs on our backs and at this hour of night, we might be run in. Let's get moving."

They went, as fast as they could. When finally they gained a recognizable street intersection they discovered they had only moved about three miles from their starting point.

"You'd better stay the night at our place, Doug," Brooks decided. "We'll get a meal and a sleep, then we've the devil of a lot to talk over."

#### CHAPTER VIII

#### Doubt

If T WAS only when they got to bed that the three experienced the full weight of their weariness. Oddly enough, the moment they came back into their own time and space normal bodily conditions reasserted themselves and they felt indeed as if they had been wandering for ages without food or drink. As to the Time-discrepancy betiween planes. Brooks frankly had no explanation to offer since it involved deep mathematical issues.

It was ten the föllowing morning before the manservant awakened each of them in turn. Immediately after breakfast, Brooks convened a council of action in the library.

"What we have discovered," he said carnestly, tepping his fingers emphatically on top of the polished desk, "opens a huge field of possibility—so huge one can't grasp it all at once. Unlimited power and prospects. That is what we have in the fourth dimension, and that is what we have to blold. but the but we have to the contract of the but itself. We have not to make a profit out

of it."
"Depends on what you call a profit," Douglas said, studying Brooks' eager features.
"For my part, my views last night are the same as now. I believe we should try and give the people of the world the heritage to

which they are rightly entitled."

"And so do I," Vera said promptly.

"You, Sis, are too inexperienced in the

ways of science and the world to know anything about it," the physicist said calmly. "And you're not showing much vision either, Doug! One can't just give a thing as mighty as this to all the varied people of Earth. They'd abuse it. That is, without a leader."

he finished slowly.

Douglas gave him a sharp look. "I may be wrong, Mason, but it sounds to me' as though you want to turn the science we've

discovered to your own personal advantage."

"Right!" Brooks grinned sardonically.

"And why not? What does the ordinary man
or woman know of science? They are born
to be controlled, not to be controllers. I

have a plan—a good one, too! Listen."

He leaned forward across the desk intently.

"I am the mister of this situation because
I have the key to the unknown. I have the
machinery which can get us there—and I
have a sister who knows what is going on
in both planes. On top of that I am the
control of the both planes on the both planes.

On top of the I am the
core thing above all others—that I know as
much, and more, of science than all the rest
of the City Scientists put togethers.

"Now, I can't hope to master all those machines in the other plane off my own bat, for it would take too long. But I can take with me the best scientists the City Scientists possess and get them to help me.

"I can pool their knowledge and make myself acquainted with everything they discover. They will find things out individually and so each will supply an unrelated section of information which I shall piece into the complete jig-saw. By that means I can become the supreme thinker while they simply have only sections of knowledge. There! Isn't that a grand idea?

"But what about everybody sharing in the benefits?" Douglas demanded.

"Nobody can share in any benefits until everything is under control, can they? That's logical. We've got to get organized first."

Douglas stared, thoughtfully at the desk and Vera rubbed her round chin as she cogitated. The physicist watched them for a moment or two. Then he got to his feet

impatiently.

"If only either of you had the merest atom
of science in your makeup you'd move a
blamed sight quicker!" he snapped. "My
plan is the only one. With the knowledge
I've got, I'm the obvious leader. We have the
pearl of great price in our hands. The possibilities embrance space travel, transmission
of power by radio, thought-wave transference. We know those things already exist.

over there. There must be other wonders."

Douglas raised his eyes from the deak at last and looked to where the physicist was waiting grimly.

"Maybe you've worked it out okay," he said. "I don't like the ambilious flavor about it, but maybe that is because I am con-

servative."
"In my view, Mace, you've got a bad attack of ambition," Vera said, as her brother glanced at her. "I can't do anything about it now. But if you get a good swift punch on the nose later, don't blame me!"

BROOKS grinned. "I can look after myself." He glanced at his watch. "Better get dressed to go out, both of you. We're due to give the City Scientists the surprise of their lives this morning. They'll find I'm turning my vacation to good account."

Mason Brooks' eyes were gillterine with

a hard light as he turned away.

Because he was Chief Physicist, Mason

Brooks had no difficulty in calling together

the six authorities who directed the destinies

of the City Scientists. But, though his

position was the highest in the research field,

de did not possess the power of the, last

word.

This power lay with the six themselves, and ultimately with Walbrook Dean, the sixty-three-year-old multimillionaire physicist, whose money and brains under Consist.

gressional authority, had banded the City Scientists together. This gray-haired, imperturable man with

the shrewd brown eyes sat at the head of the long table when at an hour before noon Brooks had at last succeeded in assembling

everybody. As usual Brooks did not waste any time. Standing up he surveyed the faces, par-

ticularly those of his sister and Douglas as they sat in rather dubious silence. Gentlemen, do you admit the existence of the fourth dimension?" Brooks asked at

length There was a surprised silence, then Banridge the mathematician nodded.

"Theoretically, yes."

"That theory, gentlemen, is now a fact! I have found the fourth dimension, and explored it, in company with my sister here and Dr. Ashfield.

Not by the merest flicker of an evelid did Walbrook Dean reveal that he was surprised. He looked at his colleagues and read expressions varying between downright incredulity and polite wonder.

"Perhaps you would explain in detail?" asked Jones, a geometrist.

"Willingly!" And Brooks did. adding neither more nor less than had actually occurred.

"I know it is hard to believe," he concluded. "I could have brought back proof with me in the shape of the log book of the Kobenhaun, but the vibratory differences

"You will have to take my word for it that such a plane, and such a log book, really exists. In that log book is the signed statement of a trusted master mariner to the effect that he was lost in a strange land."

"Assuming that you have found this fourth dimension, Mr. Brooks, what do you wish of us?" Walbrook Dean asked, "Surely you had some reason for summoning us other

than just to bear your story?" "Of course," Brooks nodded his sleek head. "I want you to ask Congress for a

financial grant, so that some hundreds of 'transition' machines may be manufactured, by which the best scientists in the world may be transported into this other dimension to study its intricacies.

"The machine I have, copied from one in the fourth dimension, is only capable at full capacity of dealing with three people. Then it exhausts itself. So of course many machines would be needed."

Brooks waited in ill disguised impatience while the dean pondered. Then Walbrook Dean's eyes strayed to Vera, and finally back to the physicist again.

"According to your story, Mr. Brooks, your sister was blinded, given artificial eyes, and then found she could see into the fourth dimension. The facts about the eye operation have leaked into the press, of course, and I understand that you, Dr. Ashfield, were removed from the register because of your activities?"

"True." Douglas nodded, "But I don't guite see what it has to do with the case. We have seen the fourth dimension."

As to that, I am in no position to agree or disagree. But obviously I cannot inform Congress that the dimension was discovered because an eye surgeon operated on Miss between this plane and that prevented me. Brooks contrary to the wishes of the Ophthalmic Council. That would put things in a bad light right at the start.

"In the second place, Mr. Brooks, it is [Turn nage]

## Backache, Leg Pains May Be Danger Sign Of Tired Kidneys

If backache and leg pains are making you miserable, don't just complain and do nothing about them. Nature may be warning you that your kidneys need attention

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designed by you?"
"Do you further think that any scientist
would trust his life to your apparatus, having
in mind the tragic consequences of your

other experiment?"

"But I've already done it!" he shouted indignantly. "If we went and came back, so can anybody else!"

"We have only your word that you have done it, Mr. Brooks. Congress would require more proof than that. Nor would the more fact that your sister claims ahe are see into the fourth dimension suffice. As I. understand it she gave out the news that she was still half blind, even after the operation."

"I told her to do that, for security reasons."
A pity. It rather spoils your own case.
Tell me, Dr. Ashfield, as an oculist, can you see anything different about Miss Brooks' eyes? Anything that might imply she can seen another plane?"

"Well, no," Douglas admitted grudgingly.
"I don't know even now how it happened.

It just—did."

"Which would not suit Congress," Walbrook Dean sighed.

"Gentlemen, I regard this as an insult to my knowledge and position," Brooks said, keeping his temper with difficulty. Dean leaned forward, his arms on the

Dean leaned forward, his arms on the shining table.

"Do you want frankness?" he asked

quietly.

"Certainly! It can't be worse than insults,

anyway."
"Very well, It is a well known fact that
you are a clever man, and an ambitious
one. Time and again you have tried to advance your position by inventing the most
stomaking scientific devices—the matterinto-matter machine was one of them. Up
the matter machine was one of them. Up
conserve the matter of the matter
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"This effort of yours might quite easily be —forgive me—another stunt! We certainly would get into trouble with Congress if we tried to get financial backing. I suggest that your provide absolute proof. Perhaps you can get that log book here or else make us

can get that log book here or else make us see into the fourth dimension as Miss Brooks does. Then, and only then, we'll go further." "For a long time Brooks stared at the impersonal face fixedly.

"Bluntly, you dismiss the whole idea?" he snamed

"Yes—for your good and ours. If it were a lesser scientist, we would have reported the whole thing as a clever trick to get money for scientific experiments but, being you, I am open to conviction."

Brooks kicked his chair aside.
"Serves me right for wasting my time,"
he said, his face white with anger. "Thank
you, gentlemen. And I'll not forget you
for it. either!"

He jerked his head to his sister and Douglas and they followed him out into the paneled corridor. He closed the Board Room door with a vicious slam.

"Now you know how it feels," Douglas murmured, as they made their way towards the exit

"What do you mean by that?" the physicist rasped.

"I was hauled up before the Ophthalmic Council and afterwards kicked out on my ear, thanks to you. Now you've got the same thing. Not kicked out, maybe, but you're not believed."

"I should care," Brooks answered. "I'll solve those other-plane machines myself. I

gave them their chance."
"For your own ends," Vera put in, "You meant to use them. You said you did. I think Dean saw through your little plot,"

"Oh, shut up!" Brooks was too incensed to pursue the subject further, but, by the time they had reached Fifth Avenue, he was cool again—grimly cool.

cool again—grimly cool.

He said nothing until after lunch. By that
time he appeared to have made up his mind.
Peremptorily he ordered Douglas and Vera

into the laboratory.

"We're going back there," he announced.

"Not for just a few weeks, but indefinitely.

Once on the other side I think we can keep recharging ourselves. Since they have as good as called me a liar at the City Scientists I'm quitting. Your practise has gone anyway, Doug. We can spend the afternoon packing

a few crates with provisions and other necessities."

He fell to thinking for a moment.

"Perhaps it's better this way, come to think of it," he went on. "If we can solve those machines ourselves, it means no sharing. I suppose, really, I could finance transition machines myself, but why the dévil should I? That's Congress' privilege. Well.

sition machines myself, but why the devil should I? That's Congress' privilege. Well, we're going. You two can come with me?" His tone implied that he fully expected it. "We'll come, if only to keep the brakes on

your ambitions," Vera answered. "From my standpoint, as a woman, I can see an awful lot of trouble coming up, if you get your hands on unlimited scientific power." "You're a feminine little fool." he answered

briefly. "And let's hear your grudge, Doug, while we're at it."
"No grudge," he answered. "I'm distressed

about the whole thing, really. I wanted people to know, to be able to use this wonderland we have found."

"They will—later," Brooks said, grandly, "Well, let's start packing up. Fetch that crate over here, Sis. I'll check the apparatus and make sure everything's okay,"

CHAPTER IX

Riddle of the Planets

SHORTLY before seven o'clock in the evening when they made their second leap into the other plane. With them, likewas altered in whitnotry rats, went three experience of the transition was not quite so unnerving this time. As before they found themselves lying on their backs on the hard ground with the grotesque moon and icily shining stars above them. Again that land-in every direction.

"Good!" Brooks murmured, getting up.
"The cases have come too. I rather thought
they would. "Difficult to decide just how
much alteration in atomic setup they
needed."

The girl and Douglas stood up beside him as he looked towards the distant ruins of

the city.
"Going to hunt for that log book?" Vera
inquired.
"No. If they can't take my word they

can go to blazes. We'll camp in the machine hall. Give me a hand with the crates." So work commenced, and work it certainly

so were commenced, shift work it certainly was. The cases were all heavy, but at least the apparent distances were foreshortened by the odd light-values of the plane. In the case of the plane, in the case of the plane of the p

he had brought along in Crate Number One. Unpacking bégan, working in an area that seemed curiously bright even for the floodlights. It occurred to Douglas after a while what was wrong. Suddenly, staring behind

him, he caught the physicist's arm.
"Say, look!" he breathed. "The light's right
behind us, but there are no shadows."

Somehow it was cery. All three of them deliberately interposed their bodies between the light and the nearest wall, but the light shone on steadily, unmasked.

"That is what has been worrying me all along," Vera decided at length. "I knew there was something odd—peculiar."

"A shadow is two dimensional in that it has only length and breadth," Brooks said pensively, "We know that light waves not only don't go straight in this plane, as they're supposed to, but that they move with infinite velocity. A shadow is the direct outcome of three dimensions, not four. That, and the light wave differences, probably explains their absence."

Satisfied, at least in his own mind, he turned back to emptying the crates. Gradually provisions, small machine tools, bedding, electrical instruments, clothes—all kinds of things were carefully unloaded, including portable cooking apparatus fitted with its own batteries.

It took them another two hours to finish their task and get the bedding arranged. Then in the double light of ghostly moon and floodlamps they squatted down to a meal before the cone of heated element standing in the center of the vast hall.

"If stored energy were not an everyday thing to us, we'd be mighty cold," Brooks reflected, eating a sandwich. "And dark," Douglas added. "Except for

the moon."

Suddenly, in spite of herself, Vera gave a little shiver.

"This place still frightens me," she said, as the two men looked at her. "Whether it is because I can see two worlds at once, or whether there is really something deadly Either that or prepare the dinner." about it, I don't know. But-well-I'm still

scared! "Nerves." Brooks decided calmly.

"I'm not so sure. I have the feeling that I am being watched all the time by somebody I can't see. I've noticed it ever since we first came here on that other trip." Her brother's keen eyes traveled in a

wide circuit as he surveyed the hall. "The place is stone dead," he proclaimed . finally. "Just try curbing your imagination.

I certainly don't feel it. Do you, Doug?"

"No. But this place is a creepy spot all the same." "Perhaps, being a woman, I'm more sensitive," Vera mused. "And yet, after all, we didn't solve where the people who owned

this city went to, did we? They might be all around us, invisible, watching." ER brother stopped with a sandwich

"They might have-evolved," he said. "The Voice did say that they had done that, but it also said that they had departed from this planet. Anyhow, why the devil should they stop here when they can roam the

universe?" "It's a problem we'll have to solve finally," Douglas said thinking. "At least we must try and find out where they went. As for Vera's fears. I don't think we ought to deride any

emotion here. It might provide a clue." Brooks grinned. "You're in love with Vera. To me she is just a sister-and a pretty crazy one at that. Best thing we can do is finish this meal, then get some sleep, When daylight comes, we'll get busy in real

earnest." They slept without interruption, again to awake again beneath that crazy, prominencegirdled sun creeping across the dull blue unclouded sky. Breakfast over, Brooks out-

"We have this hall, and the next onethe observatory-to examine first," he explained. "As near as I can tell, most of the stuff in here is electrical and therefore right up my street. You, Doug, as an oculist and expert in lenses will probably find the observatory more to your taste. Find out everything you can and we'll compare notes when the sun reaches the meridian. That,

as near as we can tell, should be noon. "And what do I do?" Vera asked dryly.

"Twiddle my thumbs?"

lined his plans

Her brother turned away actively, small electric testing instruments bulging in his

pockets. The girl watched him hurry toward the distant regions of the hall.

"Dinner my foot!" she said calmly, turn-

ing to Dougles, "I'm coming with you," He smiled and nodded. Together they left the huge main hall with its open roof and walked through to the next one. Now that they came to look at the observatory properly, they noticed that, apart from the giant central reflecting telescope there were perhaps two hundred other optical machines. but of what precise nature remained to be.

seen After the girl had wandered off to investigate on her own account. Douglas began to prowl round the apparatus. In a while he realized that he had walked into a wonderland. There were photomicrometers of incredible delicacy, as perfect as the day they had been abandoned; television equipment which apparently did not need any transmitter at the other end to deliver its images Rather it seemed only to need current for the generation of a "seeing-beam" of its own and retransmit the result back into the scanning screen.

Then there were lens-grinding machines. flawlessly cast. There were microscopes so powerful that a strand of hair looked like a thigh for thickness and bits of dust like crystaline rock. Other instruments were incomprehensible altogether and could only explain themselves when and if power was finally restored. ..

N HER search Vera came across radio equipment, as distant from the television. There was X-ray apparatus, and instruments with ground glass lenses which perhaps emitted rays of different frequencies, known and unknown.

She saw cameras, color screens, spectroheliographs, thermoscopes, electroscopes curiously distorting mirrors which gave the impression of looking into several dimensions at once. She wandered amidst them, and marveled. But she could not hope to understand them.

Finally she rejoined Douglas again beside the giant reflector and they compared results.

"That our vanished friends were masters of science is quite evident," Douglas commented pensively. "How many of their de"And this is only one hall," Vera exclaimed. "There are dozens of others. I know that. It sort of—of overwhelms you

when you think of it!"

Douglas nodded slowly and then turned to look at the huge telescope. Its great central universal mountings were obviously powered by electric motors, dusty and sllent. So complicated was the telescope that it took him some time to find the tiny eyepieces amidst the adjustment screws. When at last he discovered them—as apart from the re-

flector mirrors which he simply did not understand at all—he glued his eyes to he understand at all—he glued his eyes to he lenses and saw dark blue sky.

To his surprise the monster instrument was so marvelously balanced it moved gently under the pressure of his hand. Evidently the motors were to keep it tracking when necessary for protracted observation. Gently

he shifted the giant. At last he sucked in his breath in amazement. Something round, apparently two feet in diameter, was clear as crystal before him. Surely it could not be a planet! Not at such

a size. In his own plane he recalled that even the four-hundred-inch giant at Mount Everest only made a planet look no larger than a melon. This result was incredible. Yet a planet it certainly was, unclouded and drenched in sunshine! He could deserv

green foliage, deep blue seas, cities of fantastic whiteness. As he looked and wondered, the cities melted into thin air and there was only sun-drenched landscape.

"What the devil!" he whispered, pressing his fingers to his eyes.

Vera looked at him quickly. "Anything wrong?"

"I don't know. I think I'm going crazy."

He looked up at the sky through the broken roof girders. There was only one

planet which could be within range of the instrument in its present position. "Venus!" he ejaculated. "But she ought to be apply clouded but the imit These

to be beavily clouded, but she isn't. There are several cities—or were until they faded." "Faded?" the girl repeated, mystified. "Something interesting?" asked Brooks.

lounging in with a preoccupied expression.

Douglas turned to him quickly.

"Take a look through here and tell me if I'm seeing things."

As it happened Douglas found it was not necessary for him to desert the eyepieces.

The telescope had six sets in all, all tuned prismatically to a central receiving mirror which, when power was available to liven its energized mercury surface, cast its reflections on to the giant mirror in the circular pit underneath the instrument.

So three pairs of eyes stared into the monster, intently. Even for Vera the view was more or less normal since space was superimposed on space, and in her own plane the daylight rendered Venus invisible anyway.

Once again those cities merged to view, extensive, exquisitely designed, the last dream of a master-architect. Then, once more, they faded like mist. The three pairs of eyes searched the planet residesely but no other city was visible. There were only deep blue oceans and powdery sun-drenched

land.
"Venus all right," Brooks confirmed, though his voice showed he was shocked at this disavowal of known scientific facts. "How about Mars?"

The giant swuing again and after some maneuvering settled on the smaller planet. It wasn't red, not even ocher-colored, and the cavali was entirely absent.

Instead it was definitely a world of cities, deep gray cities, much as Earth's might look from another world. There were oceans too, and fairly prosperous-looking landscapes if the cultivated fields under the weak sunshine were any guide.

LOWLY Brooks withdrew his eyes from the lenses and stood for a while in deep thought. He turned at last to find his sister and Douglas looking at him expectantly.

"I said the first night we came here that Mars and Venus looked different," he remarked. "Now I know I was right. Mars a least his red color and is no longer a dead world. Venus, on the other hand, has lost her cloud cover and therefore her realist her cloud cover and therefore her realist her cloud cover and therefore her realisted. But this is incredible?" he broke off "Why so different?"

He bit his underlip with vexation because he could not find an immediate solution to the problem. Mysteries, especially when they disproved the scientific facts of ages, annoyed him.

"Of course, space looks as different in the fourth dimension as land does," he mused. "How do you explain those melting Venusian cities?" Douglas asked.

"I just don't. I'm a physicist, not a magi-

cian. All I can say is that Venus has a civilization far higher than that of Mars. The beauty of Venus' vanishing cities proves it. They were far ahead in design of any-

it. They were far an thing Mars possesses:

"Mars, apparently, has a civilization about the same as ours—normal plane, I mean. As for our being able to see, the planets so clearly, I imagine, unknowingly, that we re looking at them through a space curved and foreshortened by the fourth dimension, apart from the tremendous power of this instrument, of course."

"But does the fourth dimension explain their utterly different appearance?" Doug-

las demanded.
"I presume it does. But don't ask me how."

Brooks sighed and scowled over the problem. At last he gave a shrug.

"No use trying to solve what we don't know. We'll have to walk before we can run. I've been taking a look around that other hall, by the way, and I've found plenty."

With something of an effort, Douglas and the girl withdrew their attention from the telescope and watched Brooks as he paced slowly up and down. In every move he betrayed an intense eagerness from the things he had discovered.

"More I see of the next hall the surer I become that our departed scientists had mastered the secret of power from the sun transmitted direct through the air," he said. "You've seen that central towerlike instrument with the hell et the tow? Well I dilumbed."

ment with the ball at the top? Well, I climbed up to it."

Brooks stopped his pacing, a gleam in his

eyes.
"It's made of some kind of metal I never heard of. It is possible, of course, that certain metals, or combination of metals, can attract radiation unto themselves and absorb it, much in the same way as tourmaline crystals polarize light, though that of

course is in a different order of science. What I mean is this:

"To judge from the wiring of this ball it absorbs power from the atmosphere, which can only mean the sun, and then transmits it from a specially designed antennae to all parts of the hall—in fact very probably to all parts of this city. I think each machine picks up the power that way. A big radius might be affected. I've yet to discover the extent of the transmission."

"Sounds interesting," Douglas admitted.
"How do you start to prove your theory?"
"I'm studying the layout of the switches,"
Brooks answered. "If their arrangement

Brooks answered. "If their arrangement comes anywhere near anything I understand I am going to risk moving some of them and see what happens." Pausing, he consulted his notebook. "That's what I came to tell you. And I came here also to find out what you have discovered as well, of

course."

Briefly Douglas related his own findings

· The physicist nodded.

"Good! In due time we'll find out just what makes everything tick. We'll, I'm going back to that tower plant to study it." He went off with long strides and Douglas

He went off with long strides and Douglas looked after him. "Watertight mind." he murmured. "For my

"Watertight mind," he murmured, "For my part I'm a darned sight more interested in finding out how the planets have changed their faces. Still, I suppose we can't do anything more about it now. Better see what else there is."

# CHAPTER X

Science Without End

FIEN they had about exhausted the resources of the observatory, they went through the further doorway and so out into the great crumbled expanses of what had once probably been the city's heart, a heart that had been made up of huge buildings and massive terraces.

"Something occurs to me," Douglas said thoughtfully, gazing round in the shadowless sunlight. "This city, when it was in fulllife, could have looked very like those vansibing cities we saw on Venus. The stone is similar—whitish. Dust and age have

dimmed it now, of course."

Vera nodded.

"It is a thought," she agreed, but she had to drop the subject because she simply had not the knowledge to carry it on. They began to walk, slowly, Inevitably

They began to wark, slowly inevitably they covered greater distances than they had intended due to their inability to determine length and extension. Ten minutes of advance across the crumbled ruins had put the two halls out of sight and they now faced another hall, or rather the remains of one

with only a single wall standing. The girl

surveyed it pensively.

"This is the one I saw from our own plane -from the park!" she exclaimed. "I can see the park superimposed behind it. There! That's the electronic machine I described to

Mace." In a few minutes they were in a long disused aisle with the silent giants of an abandoned science on both sides of them. Douglas looked at the electronic machine, but beyond noticing that it was similar, on a gigantic scale, to the one Brooks had constructed he understood but little about it. Nor were the other machines within his field of knowledge: Every one apparently was electrical, but the great majority resembled objects

like searchlights. There were huge lenses and, behind them, two bars like the electrodes of a carbon arc.

"Wouldn't want searchlights here, surely?" he asked the girl, puzzled. She raised and lowered her shoulders helplessly.

Further along the aisle they came upon an instrument like an organ. There were endless stops, pedals, switches, and plugs, Inside it, a maze of complicated wiring. Perched on the top of it was a frame of ground glass about four feet square.

"Do you know something," the girl said slowly, looking about her. "This place looks like-like an arsenal. Those searchlight things might be ray-projectors. We have similar instruments in our own army back home anyway. And this thing here might be a sort of television thing for watching troop movements. Just a guess but you

never know"

Douglas nodded rather wonderingly. Then he looked attentively at the multiple, masterswitchboard. Most of the switches were connected up to the instruments by fine silvery wire which was within a casing of hard insulation

Douglas' fingers itched to try one, but he refrained for fear of letting loose forces beyond his control. Finally his gaze settled on a lever. It was firmly embedded in a slot in the metallic floor, but there was no trace of the object to which it was connected.

"Pull it!" the girl urged. "Can't do any harm, surely?" Douglas hesitated. After a moment of in-

decision, he seized the lever with both hands and pulled it towards him. Perhaps two hundred yards away a section of the metal floor, with debris on top of it, suddenly caved inward. There was the muffled rumble of sliding rock and earth plunging below. "Underground!" Vera cried excitedly.

"We've found something!" She turned and hurried towards the area with Douglas close behind her. When they

pulled up short, they found themselves gazing down into a black emptiness about fifteen feet square with the dim evidence of a slanting metal floor leading up to the opening.

Are you risking it?" the girl asked. "Wait here," Douglas ordered. He left

her while he raced back across fantastic distances to the main hall next to the observatory for his torch. Brooks, in the further reaches studying the tower, glanced at him but nothing more. In five minutes Douglas had rejoined the

girl. Switching on the torch beam he played it on a sloping floor which went down-deep down-into the depths of the earth.

"Let's go," he murmured, taking her arm.

S NEAR as they could tell, they went downwards for half a mile before the floor suddenly leveled out and expanded into a huge underground space, obviously machine-drilled. It extended far beyond the powerful beams of Douglas' torch on every side, and the light reflected back from metals and glasslike substances.

'By level of New York we're not far short of a mile down," the girl said. "I've been taking note."

Her voice echoed in the expanse, Carefully, half afraid, they went forward again to the nearest source of reflection. It proved to be a mighty affair like the cultivated product of a modern tank. It was streamlined, tractored, bristling with queer armament and fitted with a conning tower on which lay a residue of dust

There was not just one tank but hundreds. thousands, as far as ever the torch beem could reach. No doubt they were supplemented by other forms of armament beyond this again

In another direction were orderly files of stacked robots, shoulder to shoulder, motionless, their lensed eyes and crystaline bodies reflecting the glare. For many minutes Douglas and the girl walked down the center aisle between them, gaining a rough idea of the millions of them there must have been

stored down here. Then they came to objects like silver shut48

tles with vestigial wings sprouting from the sides.

"Airplanes, of sorts," the girl murmured.

"Rar shead of anything we've got. This is

"Far ahead of anything we've got. This is an underground military dump, or some-

thing very like it."

"Yes, yes, that's right."
Douglas' voice was serious, so much so
that Vera turned to him in the torchlight.
"What's wrong Doug?" It's a discovery,

isn't it?"

"An unpleasant one," he responded. "Do
I have to tell you that you have an ambitious
brother, or do you know that already?"

Vera was silent for awhile, then she gave

a little sigh.

"I see what you mean. You think that if he saw all this stuff here he might try and use it as a means of conquest?" She drew a deep breath, "But how could he? There's nothing to conquer. And he can't use these

things in our own plane."

"He might find a way. He discovered how to bring rattes from There to Here, so he might find a method of getting stuff like this from Here to There. If that failed, populated Mars might take his fancy. I know it's a hig assumption, and maybe unfair to Mason, but he's the kind of man who believes in hig hitings. He's pretty bitter about the way the City Scientists turned him down, remember."

"Then we'll say nothing about this," the girl decided. "Let's get back before he starts

looking for us."

Retracing their steps they reached the ruined hall again before any signs of Mason Brooks became visible. When Douglas Ashfield had closed the floor trap again and covered it realistically with more debris. Douglas returned to the acturing lever and to the returned it is the best of the returned to the state of the half between the returned it is the best of the returned to the returned to the state of the returned to the return of the returned to the return of the return o

the lever in his hands.
"So long as we keep the lever and he has

other things on his mind, he's unlikely to find anything," he said. "We can hide this here."

He climbed up the bulk of a nearby machine and placed the lever behind its topmost ledge. The chances of Brooks finding it, or even then guessing its purpose, were remote.

"As to the rest of this stuff, I don't know

much about it," Douglas decided, looking around. "But I may later. We'd better see how Mason is progressing. He may have the key to the whole outfit in that central tower plant he's studying."

Mason Brooks certainly had the key, but to discover just how it worked was not a task overcome in a few minutes. For many days, and part of some nights, he worked on

equations and notes.

He forced his keen scientific mind to the utmost to work out the details of the complicated sciences involved in the control of the central power-tower. He seemed no longer in doubt that this was just what it was.

A week passed, time in which all three had gradually become accustomed to their surroundings and had discovered practically everything the ruined city contained. Then a fortnight—

IN THREE weeks Brooks announced that he had solved the problem. Over a breakfast prepared by the girl, following a night during which he had been scribbling by the light of a portable lamp, he made the results of his research known.

That central tower contains a metal stractor at the apec, he explained. "It is a well known fact that the sun gives off a vast surplus of energy which we have never found a way to utilize. But not so these scientists. They devised a metal with an executive for the sun and the second strained with the second strained wit

"Those towers, on the moving of certain switches, give power-actomic power-to-the machines. They pick up the transmission as an aerial picks up radio waves, and thereby begin to function. The actual radiation in terms of normal energy is met, much, but expressed in terms of atomic energy it is stupendous.

"In other words and put briefly, that ball arrangement can absorb enough atomic energy from the sun during its daily race through the sky, to keep this city going for two months. Repeated daily you can see what would happen. The area it covers seems to be infinite, like everything else

that functions by wave-length in this cock-

eved place." Then it has been absorbing energy for untold generations?" Vera questioned. "Yes. But the energy has been passing off

harmlessly through a separate earthing circuit, otherwise the whole apparatus would have consumed itself long ago. I tested what I thought was this earthing circuit and it

smashed my voltmeter.

"Since it is a Fry and Merrins instrument and goes up to maximum readings it showed two things-colossal power, and the power in existence now! Since I have studied the switch layout. I know just how to shunt the power from the 'waste' circuit to the normal circuit. And that is just what I intend to do this morning."

. "Once that is done, you think that every machine ought to function by just handling

the controls?" Douglas said. "They should."

His observations brought breakfast to an abrupt conclusion and then they all three headed into the center of the hall. Obviously quite sure of himself now and studying his notes at intervals. Brooks went to work on the controls of the towers. Finally, after mov-

. wies of switches, he pulled the heavy vitch free of the top contacts and iammed it in the lower ones,

There was a sound-the first the three had ever heard in this plane outside of the noises they themselves had made. It was a deep, purring hum of power, power flawlessly smooth, flowing through apparatus made by master engineers.

"It works!" Brooks exulted, color in his pale cheeks, "I was right. Look at those dynamos over there! They must have been on open switch ready to pick up transmission right away."

In a far corner of the hall were six huge. flawlessly balanced generators, spinning to a rising surge of power, their central shafts revolving so true that they seemed to be motionless

"They must be to power the instruments which do not rely on radiated power," Brooks decided. "The others, though, should use this tower's broadcast energy. Let's see-"

He hurried over to the nearest machine, a complicated device rather like a loom. The moment he pressed the switches, metallic arms began to move gently, gathering speed. Fascinated, the trio watched as by mechanical processes the machine drew out long lengths of synthetically made stuff like cotton and began to weave them crosswise into a tightly-knit fabric.

"Clothes, carnets, tapestries!" Brooks exclaimed. "It's an incredibly efficient auto-

matic loom. They had suddenly entered a scientist's paradise. Each machine responded to the

movement of switches and picked up the desseminated power. They found they had equipment which

created tabloids by breaking down and rebuilding the very atoms of the atmosphere Others were mobile and moved about as vacuums and excavators, shoveling away rubbish and masonry by magnetic means.

There were automatic trip-hammers, drills, welding instruments, pulverizers, surgical apparatus perfect beyond imagination, And in the observatory the radio and television equipment were ready for the using. In fact the task was to decide what the astounding machinery could not do!

ENNINALLY, towards evening, the three were satiated with discovery. They sat before a huge powered radiator eating some of the delicious synthetic food and dis-

cussing their achievements. "One could build this city anew." Brooks said, thinking, "We have everything necessary to do it. We can create metal and stone just as easily as we can destroy it. We have

excavators, mobile cranes. What we have not got is the labor-and, oddly enough, there don't seem to be any robots which might help." Vera's eyes strayed to where Douglas was sitting and he smiled rather grimly as he

thought of the thousands of them packed away in the underground, "We might perhaps get labor here,"

Brooks went on slowly. "If we could once get people here, we could do a great deal." "That's been my idea from the start." Douglas reminded him. "Everybody ought to share in this. We could build a city in this place which would make any normal city an utter back number. But after what happened to us how are we going to do it?"

"Offhand I don't know." Brooks continued. "But I have a notion twisting in the back of my mind. Frankly, I have another problem absorbing me at the moment. Those changed planets. I haven't forgotten about them, you know. We know that at least Mars is inhabited and maybe Venus too, and we have the radio equipment working too. It utilizes ultra short waves. I'm' wondering

if we might try a radio communication." "Good idea," Douglas agreed. "Since we seem to have fore-shortened space in this

realm a message might not be hindered as it is in our own plane."

The idea decided upon they acted. When supper was over, they went into the great observatory, floodlighted now by the normal lamps still embedded in the cracking walls, Brooks settled himself before the radio equipment, satisfied that at last he was tackling something he really understood.

It took him perhaps ten minutes of fishing with the transmission controls before he was satisfied that a short-wave carrier was going forth, aimed as near as his mathematics could judge it, at Venus' position in the night sky. Mars had yet to appear over the horizon.

Earth calling Venus," he intoned into the microphone. "If you hear me show some

sign. Earth calling." For nearly twenty minutes he kept resomething happened!

peating his announcement, but no response came through the speakers. Just as he was about to give up the task,

CHAPTER XI

Ways and Means

ACH of the three felt it simultaneously

-an immense flowing of power about them, the conviction that somebody or something was present with them in the great roofless hall. Brooks turned very slowly and gazed at the astonished faces of his sister and Douglas. They were staring into emptiness, expecting to see something materialize any moment.

As yet, however, nothing untoward was visible. Nevertheless they knew, with every instinct they possessed, that intelligence was near them, intelligence so immense, so transcedental, that their human minds were cowed into submissive attention before it.

"You cannot see me, my friends," said a voice. If it was a voice. Like the thoughtwave instrument they had encountered at first, it seemed they felt words instead of heard them.

"I-we-have known for some time of your arrival in this plane," it went on, "You need not waste time trying to get into touch with the second world. I was intending to come here in any case. I-we-represent the race from which you came. Our evolution has been such that our bodies no longer signify anything. Long ago our minds merged into one great thinking unit.

"Matter we do not need, or use. Even our cities, which you saw through the reflector, are only a figment of our thoughts. Before you could pry too closely into forbidden things, we willed our domain out of being. To your limited senses it vanished

"On the other planet, which you call Mars, there exists matter of a lower order which, even so, is still generations ahead of yourselves, existing as it does in four instead of three dimensions. For that reason knowledge is greater and the physical body is more. adapted to understanding the manifold problems at which you balk.

"From your own three-dimensional plane both planets appear deserted. Or at least one seems dead and the other wreathed in cloud. The cloud is merely a product to keep your greedy eyes from probing our secrets. and the dead aspect of Mars is due to ti fact you see it three-dimensionally inste of in its true perspective." "Can we not see you?" Brooks demanded. ...

staring into the air. "How can one ever see a thought?" asked the Presence dryly. "No, you cannot see me, nor do you hear me. You merely sense my -our-being here. We are interested in your activities, interested that you have reached so far upward on the journey to reclaiming

your lost heritage. "You are the children of the original Thousand Outcasts, of course. You have heard the story of your ancestors, and since I have read your own story from your minds, you need not explain anything. You propose to try and master this machinery."

"That was my idea," Brooks assented. "Or maybe you will not permit that?"

"On the contrary, we-I-shall watch your activities with interest. If we feel you have qualified to be the possessors of greater knowledge, we shall give it, and help you to return to your full status. If, on the other hand, we decide that there is still too much of the beast in you to allow you to control great science, we shall remove everything from you. It is for you yourselves to decide what our decision shall be.

"If I may speak, I feel that this heritage is not ours alone," Douglas put in quickly. "It belongs to the entire human race. They are as much descended from the Thousand as we are. But they won't believe in our discovery! How best can we convince them of

the truth?"
"So far you have only mentioned it to high
officials who are afraid to venture," the Presence answered. "They do not represent the
people themselves. I shall not solve your
problem for you. That is your own task. Let
he neonle know! If you succeed, we shall

see what you make of your discoveries and achievements."

Abruptly that sense of immense power relaxed. The Presence, whatever it had been,

had gone.

Brooks gave himself a little shake and rubbed his forehead.

"Mind!" he breathed, looking at the awestricken faces of his sister and Douglas. "Mind of the nth degree! To think that we might have been like that if our ancestors had not been traitors!"

and not been traitors!"
"Or we might have been on Mars as lesser

strata," Douglas pointed out.

Vera might." Brooks corrected. "There as been a cleavage between the highly intelligent and the average type of being, one set has evolved into the highest of intelligences, so much so they are merged into a single unit. The other type has simply become highly evolved humanity with the set.

heights still to be scaled."

Vera's voice was bitter. "To which I would belong?" she asked.

"You are not an intellectual, my dear," Brooks explained, getting to his feet. "I am. So is Douglas, even if we do have our different outlooks."

Vera hesitated over saying something further, then she changed her mind. In any case her brother had already forgotten his observations. He was pacing up and down, pondering.

"You realize that we have entire carre blenche here to do as we wish:" he said at last, coming to a halt. "We have only to master all there is in this place to gain for ourselves the keys of an even greater kingdom of selence. That would mean travel beyond this world, large though it is fourdimensionally. It might even mean the could travel space without recourse to space machine, as this Presence does. We could reach the furthermost deeps."

He stopped, recovering a hold of his imagination.

gination.

"This city has got to be built again." he decided. "And we must have labor to do it.

It will need one person, maybe several, for each machine. It will need a directing, guiding mind, too."

"We know all that," Vera sighed. "But how are you ever going to tell the people? We shan't return to our own plane for a long time yet, and even when we do nobody

will believe us."

"No," Brooks agreed, frowning thoughtfully, "Yet there must be a way. I'll think of something, eventually. Tomorrow I resume my study of the machines. Maybe I'll

find an instrument somewhere which will give me an idea. Right now I think our best move is to get to bed."

The following morning Mason Brooks started his second analysis of the machines

with a new zest. He also now had the advantage of seeing each machine operate since the central power-desseminating tower constantly radiated its energy.

Each machine he tested he noted down in

Each machine he tested he noted down in detail, deciding later upon its precise function. Douglas and Vera accompanied him on his travels, especially into the more distant machine room, but he missed that hidden lever slot with the stone over it. Ultimately he came back to the main hall

where they had made their headquarters and concentrated his attention on the device which had operated at first when they had crossed the field of the electric eyes. How the thought impressions had been made, and he paralysis created while sensory impresthere was a simpler side to the apparatus which claimed his attention.

FTER a whole day of studying the instrument he explained what was in his mind.

"This thing has a central transmitting

plate," he said, as Douglas and Vera studied it. "You see this wafer- thin disk inside the protective casing? Its metal is similar to that comprising the energy-absorbing globe on the tower top there. Atomic setup is slightly different, though, meaning it is tuned for far lesser vibrations than the tower hall.

"Those lesser vibrations, I believe, are thought-waves. Thought-waves have a definite vibration, remember-slight though it is rebuilt. After that-we'll see."

is. This disk captures them, and the energy thereof is passed into the transformers, and out from this antenna here. When the scienitists left their thought message, they did it simply by leaving a thought-record, as we might a phonograph disk. But with it they added sensory impression vibrations, which belones to this commiscated mass of, ma-

belongs to this complicated mass of machinery down here. "That part I don't understand yet. It might take me years to grasp the secret. But L do realize that this machine, as it is, with the

sensory impression part cut out of circuit, can amplify thought."

"And how much good does that do us?"

Vera asked.

"It brings us the people we need," Brooks said slowly. "A complacent gris apread over his face. "Thought waves, by all the laws of science, are not stopped by any solid, any distance, or any dimension. That being so they will pass—amplified remember—from this into our own plane. We can force any-body we wish to come here!"

"Hypnotically?" Douglas questioned.

The scientist made an impatient gesture.

"Of course. But let me finish. We need quite a lot of people here to help us, and it might take a long time to get them individually. So I suggest that famous men and women of our own plane should be forced hypnotically to tell the people what we have here. Vera, with her double sight, can See exactly where such people are. Unknown to them, we can focus this machine right on them, compel them to do whatever we wish.

"The City Scientists can force Congress to grant money for the building of 'transition' machines. And if that doesn't work, I'll order the President himself to do it. In a word I'll twist those confounded obstinate higher-ups around my little finger!" Brooks' mouth had set harshly.

OUGLAS nodded. "Yes, I suppose the bing is scientifically possible," he agreed. "In fact it is the only way you will ever start to convince people and get them here. But when they do get here, what then? I want to convince scheme of yours to make eacher grantions scheme to yours to make the property of the property o

"Partly," Brooks assented. "At first it will have to be that way. At least until the city is rebuilt. After that—we'll see."
"Why don't you get the people here and

then ask them what shall be done?" Vera suggested. "That's demorated. By assuming too much power you may come a cropper." "I have spent many weeks learning the details of this place," Brooks answered in grim tones. "I don't intend to trade my knowledge with a mass of uneducated rab-ble. Some scientists will come too, I'm only the property of the control of the property of the

some scientists will come too, i'm noping, but they'll be in the minority. "While I understand as much as I do, I'm staying in control. As a scientist the idea of handing over a heritage does not appeal to

me. It would bring utter chaos."

There was a silence before Douglas answered.

"Well, we can see how it works, anyway. When do you propose to start?"

"That is up to Vera." Brooks glanced at her. "You know the most famous people in New York as well as I do. If necessary, we'll move to the area of Washington to tackle the President. The one I'd like to get at is that old dishard Walbrook Dean. He speaks every week, weather permitting, in the open park at the back of the Science Institute and park at the back of the Science Institute and grand chance. You can see him if he's side, but not if he's inside a building."

"What you want me to do then is keep a check on every person of importance able to sway the people, and you go to work when they decide to give an outside address?" the girl asked.

"You have it exactly. Being early summer most of the public addresses, scientific and political, are given in the open air and that's going to help our cause a lot. So, Sis, keep your eyes open."
"I will." she promised, and stared beyond

the immediate ruin of the hall into the dim, misty outlines of New York itself. She had grown so accuistomed to two places at once that her mind had come to discount one and concentrate on the other. But now that she realized she had a task to perform, she began to take her 'mirage' bearings. As near as she could tell she was about half a mile from Fifth Avenue in an easterly direction.

. "If, of course, there should be trouble between these people and ourselves when they arrive, I have many ways of making them do as I wish," Brooks remarked, thinking. "Not necessarily thought compulsion, but a display of force. Nothing like it to cow the lesser type of mind."

"Meaning?" Douglas asked ominously.
"I've examined the ruined hall where you and Vera saw that electronic machine she

and Vera saw that electronic machine she described to me," Mason Brooks said. "Everything in that hall—excepting the electronic machine—is made for warfare. It's an arsenal. Or did you think those things with lenses were limelights?" The physicist gave a cynical lauly.

"I didn't know what they were," Douglas confessed. "I guessed the place had military trend, though."

trena, mough."
"It's a dream of power!" Brooks declared,
elenching his fist. "Any crisis from anywhere could be weathered with machines
like those. There are six different sets of
radiation-projectors to start with. As near
as I can tell, they emit freezing-beams,
which stop molecules dead and produce an
absolute zero, heat-beams, exciting matter

into disintegration.

"Then there are paralytic-beams for fixing a living being utterly rigid and three others which incorporate atomic energy. Over all of them there is a master-switchboard and their range is infinity, near as I can figure.

Just as well to know in case of trouble."
"You're not thinking of using such horle things on our own people?" Vera asked

le things on our own people?" Vera asked akly, turning.

Of course not-just so long as they behave!"

"He girl moved forward, laid a hand on her brother's arm.

"Are you really trying to set yourself up as a ten-cent dictator?" she asked slowly.

"If I thought for a moment you were, I'd never tell you what I can see in our own

plane. That would spoil your plan right from the start!"
"This is absurd!" he protested. "Just because I point out that we have the wherewithal to protect ourselves, you start to

jump to conclusions."

For a long moment the girl hesitated, searching his keen gray eyes. She was not quite sure what she read there but, woman-like, she decided he was entitled to the bene-

fit of her doubt.

"All right," she said quietly. "Only don't stride too far! I haven't forgotten what the Presence said, you know. We can only take over in earnest if we prove worthy. Bullying isn't the way to do it."

Brooks grinned and patted her arm.
"I'll be a good boy, Sis. I promise!"

#### CHAPTER XII

#### Journey for 2,000.

DEF in a week elapsed before Vera through discovered the first subject for the thought amplification experiment, and during that week her ever-active brother had discovered something else. The radio equiporate of receiving, but not transmitting, the radio waves desseminated in the normal three planes. There was a slight distortion due to its journey through the narrow veil of wibration of the planes. There was a slight distortion due to its journey through the narrow veil of wibration of the planes. There was a slight distortion due to the journey through the narrow veil of wibration of the planes. There was a slight distortion due to the journey through the planes when the planes were a support to the planes with the planes when the planes were also also the planes when the planes were also as a support to the planes when the planes were also as a support to the planes when the planes were also as a support to the planes when the planes were t

Exactly how it was done was a problem upon which Brooks intended to exercise his . mind in the future. Being a good scientist, he was content to accept the genius of the master race for what it was without giving

himself a headache inquiring into the cause. The discovery gave him an immediate advantage. It would now be possible to keep a finger on the pulse of opinion in their own plane. They would be able to judge exactly how the experiment was making our.

What Vera amounced that she had read a factor of the state of the stat

Sure enough, on the chosen evening, Vera announced that he was present on the platform, a microphone before him and a quite respectably large audience spread out in the open space willing to while away an hour listening to him.

Mason Brooks had made every preparation. He had put Douglas in charge of the radio, whereby the words of the senator would be relayed from the third plane broadcasting station. An extension from the radio equipment and a subsidiary speaker standing on the rough plain nearby was all Brooks needed. With Vera at his side peering into apparent emptiness he waited for her signals. Then when she gave them, he concentrated.

The effect was immediate, the contact being so close through the veil. In fact the machine did all that required of it so per-

fectly that the physicist found time to be surprised.

"Now I shall cover the field of economics." boomed the senator's well-fed voice over the plain, as Douglas tuned him in, "It is a wide field indeed." He paused as he received the impact of Brooks' thought-waves. "A very wide field-but there is a much larger one! And that is the fourth dimension. An entire new world in the fourth dimension was recently discovered by the eminent scientist, Mason Brooks."

A roar from the assembled people betrayed their surprise.

"It will come as a surprise to you to know that our learned City Scientists hushed up this mighty discovery for fear it might prove a threat to their personal power. They even called their chief physicist, Mr. Brooks, a liar. To show his contempt. Brooks went back into the fourth dimension! I myself know of the marvels of this plane, this world we should really all possess,

"There is a way to reach it too, and I can describe the exact machinery needed for the purpose. It is for you, the people, to demand that money and materials become available for such a transit to be made. There is no compulsion about it, of course. Only those among you who are anxious to assert your-

selves and demand your rights are now, offered the chance." Altogether Senator Goldman talked for an

bour on the wonders and benefits of the fourth dimension. Though he afterwards vowed that he could not remember a word he had said, the people were more than interested.

At later periods, when they heard the same kind of speech from Walbrook Dean himself, and finally even from the President -for which purpose Brooks and Vera changed their locale in the fourth dimension to match that of Washington in their own world-they became clamorous to know

what it was all about Goldman had said that he knew how the necessary apparatus could be made, and at the next open air meeting he gave every detail, just as Brooks willed him to do, he himself taking the facts from the electronic machine, for he had never made an actual formula.

The struggle was over then. The people demanded some sort of action, and a somewhat bemused Walbrook Dean, in collaboration with the President, were obliged to give it to them. Four dimensional transit machines were mass-produced and then set up in a specially requisitioned area in Central Park. To many it was considered a stunt and

to others an adventure. Still others, mainly know-it-alls, branded it as the biggest hoax in creation, until with their own eyes these smart-alecks saw people fade into thin air one by one as the pow-

er operated.

N CONSEQUENCE of all this there bebegan to drift into the ruins of the fourth dimension a few scattered, bewildered people, men and women dazed by the journey and the incredible land in which they found themselves.

The sight of Brooks, calm and impersonal, with Douglas and Vera at either side of him. did much to raise their courage again. By degrees they began to understand the magnitude of the thing they had done, and they had no complaints. The calculating physicist had prepared everything befor hand. He had caused the automatic chines to create all the necessary food, bding, and other vital necessities of life. St .ter was unnecessary, anyway, in this land of

eternal calm. The drifting dozens became hundreds. In a week there were two thousand. The ruins of the giant city were black with travelers from the third plane. Then, as Brooks had calculated, the transition machines on the other side burned themselves out after

working at such high pressure. Arrivals thinned—and finally ceased. Once this happened, he made the position clear. Ordering the people out onto the great expanse of plain one morning he stood on a collapsible stool and began talking to them.

"You came here, my friends, either out of idle curiosity or with the hope of getting something for nothing. You believed you were coming into Paradise, and have found only ruins. Well, you can have that Paradise. if you are prepared to work for it! There is superscience in this crumbled city, which I alone understand.

"If you are prepared to help, a new city can be built, and once that is done you will find yourselves in absolute security with nothing more to worry you and with science ever at your elbow. If you do not feel like work, then reflect that there is no way back! I hold that key.

"The machines which transfered you here gave you enough energy change to keep you here for many years. Periodic recharges on this side can keep you here until death. If you don't wish to work you will find yourselves outcasts in a strange, weird land which you do not understand. But if you do work, under my orders, you can have every-

"Then we were brought here by false pretenses!" somebody shouted angrily. were told that science had discovered our rightful heritage and that by claiming it we would find everlasting peace. Even the

President took part in the discussion and told us that."

"The President merely told you what I told him to tell you," Brooks answered calmly, gazing round. "That gives you some idea of the enormous power I wield, when [Turn page]

HERE ARE those miracle-mates...

thing!"

your face, our blades. Yes, after four years serving our armed forces Star Double Edge Blades are ready to serve you again.





THE AMAZING



THE AMAZING 6NX Process gives Star Blades edges steel has never taken before | Star Division, American Safety lyn 1. N. Y.

even the President is at my behest. It was not a false promise, my friend. I have told you how you achieve peace-and comfort and that is work. As you should. To labor for science is an honor!"

"What do we do then?" demanded a woman in the front of the crowd.

an in the front of the crowd.

"I have devised a labor-direction bureau,"

Brooks answered her. "It will operate in the

Brooks answered her. "It will operate in the main machinery hall. From each of you I will learn of your qualifications and then assign you to the appropriate task. The more brilliant of you, granting there are any, can become teachers and overseers. I propose to start this indexing after we have lunched in the usual way. For the moment that is all." Brooks stemed down and waited for a

Brooks stepped down and waited for a while, a cold glint in his gray eyes as he saw a rather menacing movement towards him from the body of the crowd. Then, evidently none too sure of how much power he possessed, the people broke up and began to

drift back towards the city ruins.
"What's the idea?" Douglas demanded.
"If ever there was an aggressive speech that
was it. You're lucky they didn't go for you!"

"They're rabble, as I expected," Brooks answered. "I saw each one as they arrived. Not one high-up or scientist amongst them. Ordinary, little people who stick in their own petty ruts from the cradle to the grave, the type who jump at the chance to live for nothing on somebody else's efforts.

They thought they had found the Promised Land when they arrived here. Now I think I have changed their vlewpoint. Had there been any intellectuals, I'd have talked differently, but to a mob like this authority is the only whip. Believe me, I know what

I'm doing."
"Well, I don't like it!" Douglas retorted:

"At least they are entitled to courteay."

BOOKS' lips became a thin, harsh, mer-

"That kind never is," he answered. His lips set a little. "And let me tell you something. Doug—and you too, Sis, for that mat-

ter. Neither of you realize even now the value of the thing we have in our hands, the bopeless chaos that would ensue without rigid control.

"Twe got the labor I need and science of

"Tve got the labor I need and science of the nth degree. I'm going to use it, mould it, build it, and no silly sense of restraint or idealism, or that cock-and-bull nonsense about a rightful heritage, is going to stop With that be turned away decisively and began to strut in apparent seven-leagued strides towards the city ruins.

"I think we had a good idea when we concealed the truth about that underground arsenal," Douglas said thoughtfully, gazing

after him.
"That makes two of us!" Vera's voice was

angry. "He's behaving like an idio!!"
"Not an idiot, dearest, He's too clever a

man for that. He simply realizes that he has tremendous power and means to use it. Thathas been the falling of ambitious men down all the ages. He has got to be stopped; If., only for his own good. You and I have a say in this, too. We were in at the beginning.".
"But since he gives the orders and has all

the science, what can we do?"

"I don't know yet, but my criginal idea of the people coming here to work out their destiny as they wish, leisurely and with mutual understanding of the problems, has got to come about somehow even if I have to use force to make this aggressive brother of yours see sense. Well, that's ahead of us. Can't do anything right now except have dinner. Come on."

CHAPTER XIII

The Widening Rift

Mason Brooks' Labor Direction Bureau consisted of a portable table at which

he saf, and a mathematical machine standing on three legs beside him. This atomishing contrivance, powered like most other things from the central tower, noted down every detail of the applicant—height, weight, huscular power, size of brain, intellectual development, and so forth—and within the space of ten seconds disgorged a square piece of metal foil stating exactly what kind of work the anolikent should undertake.

The one word "Driller," "Machinist," "Wedder," or whatever it might be, was in the language of the master race, of course, but with very few exceptions Brooks understood them. He had had plenty of time by now to discover the meaning of single words, though the language as a whole, as he had found it in the records, was highly complex. Learning the details of the two thousand amplicants was a job which took four days.

in itself, for the name of each had to be written by Vera onto the card of that person's potential capacity, but the actual assignment of work was far harder.

It took nearly a month of planning on Brooks' part to decide who fitted into what. Finally, though, he managed it and had the satisfaction of knowing that every man and woman was in some way employed in the job of rebuilding the city. There were no wages. It was either work or starve. That

more than one of the victims was highly resentful was perfectly obvious.

But the physicist was satisfied. He had nothing to do now but watch the ruins being gradually cleared away and the foundations of a new city being laid. Around the de-molished walls of the machine-halls new skeletons were springing up one person to each marvelous machine, and hundreds of different varieties of apparatus being used. Here, in this process of machine control, Brooks revealed the subtle depths of his

plans.

Knowing that concentration by one person

on one machine must mean the discovery of very detail concerning the contrivance, he to it that a written report was handed him each day by each worker about machine's helvavior. So, by degrees, he

on to amass a vast quantity of informaon on each machine's working, for study when time permitted. In other words his old grandiose scheme of each worker not knowing what the other was doing, while he himself mastered the entire setup, was showing sizes of a vicerous rebirth.

Douglas, though, was by no means idle. Though he was not actually a worker, he pretended that he had much to do to determine the nature of the instruments in the observatory. From here, away from Brooks in the adjoining main hall, it was only a short trip in the oddly foreshortening distance to that other hall where lay the entrance to the underground arenal.

Here—when he could be sure he was not being observed—for so far the workers had not started on this section, he brought his rather circumscribed scientific knowledge into play to try and discover how the underground armies were controlled. It took him nearly a dozen visits before he realized that their control was from below and had noth-

ing to do with the switchboards above.

This revelation, and the discovery that the floor tran could also be shut by a counter-

lever from below, gave him satisfaction. If ever he needed to use this mighty army to cuth Brooks' too high-flown ambitions, he could do it safely, out of sight in the underworld, only opening the trap when he was ready to attack. Had if been otherwise it would have been impossible for the upper hall contained, of course, all the other deadly sources of attack of which Brooks was fully

aware.

To find that the control was below, and to know how it worked, were two different things, though. Whenever he could, Doughas took Vera with him and together, the rup closed behind them, they spent odd hours deciding which switch controlled a certain

area or machine.

They had light too to work by, for since the advent of the central power tower cold light globes had come into being, drenching the remotest corners of the underworld in shadowless brilliance.

Indeed the place was so enormous that it took them many weeks to determine fully its extent, and in the process they found to the probability of t

T THE furthest extremity of the immense cavity they discovered yet another opening in the roof, to which the floor rose gently. A lever shifted the trap and they emerged to find themselves in open plain near the sea, the city runs oo far away in measureless distance that they were out of sight.

"This is just what we want," Douglas declared, on the morning they made this discovery. "Mason can never interfere with us if we keep this a secret. Obviously the city at one time extended even this far, but whatever machines there were here have been re-

moved."

He pointed to the dusty ruins of collapsed walls, and then to the solitary lever remaining for the trap. It moved clumsily under his efforts. He had to shift it back and forth several times before there was any ease of movement. Then, as in the case of the pre-

vious lever he had found, he unscrewed it and hid it beneath a distinctive piece of masonry.

"You seem to be pretty pessimistic over."

Mace's ambitions," the girl remarked presently, as they began to walk slowly in the direction of the distant city ruins.
"Can you blame me? He's revealed exactly what he intends to do, and I just don't

by what he intends to do, and I just don't intend to allow him. We may come to blows over our varying policies finally, and I'm notdeluding myself into thinking that he'll be content with mere words to prove he is right.

"Mason will probably use force. If so, I intend to be ready for him. I'm more gial than I can say that we've found this secret entrance to below. We'll never be interfered with, and we can throw away the lever controlling the other entrance. In time well figure out how all that other underground entil works."

"Yes, I suppose it's the only course," the girl admitted. "Funny thing how you men always want to start fighting. You won't believe this, I suppose, but all I really want is to go back home, have my eyes put right, and live like a normal girl with seven million dollars. This place doesn't interest me abit. It's too fantastic, too diabolically

clever!" .

Douglas smiled and gripped her arm

"I'll fix your eyes yet. I give you my word. Either here—or back home. All depending on which way the wind blows."

With the passing of eight weeks Douglas had the time, with Vera's assistance, to solve the problems of the arcenal. Hard study and trial and error showed him how to make the robots move, how to control their weapons, how to pilot the airplanes and drive the tanks, how to operate the radiant-energy screens.

The inner forces controlling them he did not understand, but the matter of maneuver and mobility was no more difficult than guiding an automobile in a given direction, once he got the hang of the remote-control nanels.

Since the panels possessed television eyes which in turn recorded the exact movements of every robot, tank, and plane he felt he could, if the grim necessity arose, handle a whole war from a sitting position before the switchboards.

He said not a word to Mason Brooks needless to say, and neither did Vera. In fact the physicist was too absorbed in his own affairs to be much concerned with other activities anyway. One day, however, he must have wondered how they spent their time for as they sat at dinner in the rebuilt building they had made their headquarters he asked a

question.

"Taking you a long time to find out what
the lenses and instruments in the observa-

tory are for, isn't it, Doug?"
"My science doesn't equal yours," Douglas answered. "In any case I am not devoting myself to it exclusively. I've been doing a lot of thinking, trying to plan out a new part of eyes for Vera here. She can't go on with double vision indefinitely.

"No, I suppose not." The physicist reflected for a moment. "But why try and devise a pair of normal eyes? Why not a pair modeled on the style of the fourth-dimensional eyes our ancestors possessed, using the plica semikunaris in its full range?

"Think of what that would mean! Vera would be the first human being since the Outcasts to understand this plane properly,

to see it as it should be seen."
"Its I—your sister—you're talking about the girl objected. "I'm just reminding case you think I'm a guinea pig."

ROOKS raised his eyebrows in prise. "But you want to help, don't you? Since

another operation will have to come some or later it may as well be to some purpose. What is the use of having just a pair of ordinary eyes? You'll be as blind as the rest of us to the fourth dimension's real meaning. On the other hand, with the change,

you could become really useful.

"As it stands, your only usefulness lies in being able to see two planes at once, but as we grow in power here that won't be a necessity. After the operation, you can occurve a really high nosition by being a sen-

uine four-dimensional-eyed woman.".

The girl did not say anything. It was obvious that her brother's utter disregard for her feelings had shocked her.

"I am not going to make such a pair of eyes, either for the sake of your ambition, or any other reason," Douglas said in a level voice. "Even if I could make them, which is next to impossible without drawn specifications or at least a close study of the lenses involved.

"Vera is going to have normal sight, the

same as you or I. And in case you've forgotten it, I'm intending to marry a normal, very attractive girl and not a scientific freak doomed to work herself to a frazzle just to further your ends."

Brooks grinned.

"Ökey, That's plain speaking, It's the way
I like it. I confess though that I don't understand why you throw wavy such golden opportunities. Persónally I would never marry
an ornament—and since no woman within
my experience has ever possessed a fraction
of brains, I'm a bachelor—thank Heavens!"
He got to his feet and flexed his canable

"Well, work to be done," he said. "We're getting this city very nicely into shape, even if I do have trouble at times."

hands.

"Trouble?" Vera questioned, "What trou-

"II you stayed around to help instead of wandering gook knows where, you'd had out! One or two workers—men, and bone nidle—have been siacking on the job. I had give them a dose of paralysis to warm them. Unpleasant for them to have every muscle locked tighter than an atomic system, of course, but they saked for it. They've come

o heel since. Well, I've got to be off."

He turned to the door, then stopped as
Douglas tumped up and caught his arm.

"Wait a minute, Mason!" There was a grim hardness in Douglas' face which made the physicist elevate an eyebrow. "I don't think I heard you aright. Do you mean to say you punished those poor devils with paralyzing meakines?"

you punished those poor devils with paralyzing machines?"
"I do," Brooks assented coldly. "Any objections? Or have you forgotten that I'm the

boss here?"

"I haven't forgotten anything, but I realize
that with so much power around you, you
are in danger of losing your head. If you
start punishing people in that way, there'll

be a revolution."
"I should worry." Brooks shrugged. Then
withdrawing himself from Douglas' grip, he
added, "Do me a favor, Doug, and concentrate on your own iob. I'll handle my own

affairs."

He turned and went out, but struck with a sudden thought Douglas again stopped him. "I'm stuck for labor," he explained, as the physicist came back to his side. "I can't work

out all the details of the observatory without assistance."
"Then why didn't you ask for it before?" Brooks demanded. "You can have fifty, a hundred, two hundred men or women if you want."

"A hundred men and a hundred women will suffice." Douglas said, thinking.

"Okay, I'll have them report at the observatory ruins in thirty minutes, and see that you keep them up to their work."

With a rod Brooks work on his work."

with a nod Brooks went on his way at last towards the dark mass of workers swarming over the masonry of the newly rising city. Douglas looked after him. He turned as Vera

came to his side.
"What on earth do you want labor for?"
she asked curiously.

"Because there's trouble coming," he muttered. "I'm going to take one last chance and try and show Mason where he's wrong. I in-

try and show Mason where he's wrong. I intend to treat the people who work for me as human beings. They will be bound to tell the folks who work for Mason and that will start comparisons and maybe bring things to a bead. Mason will then either have to climb down, or—"

He left his sentence unfinished and caught the girl's arm.

the girl's arm.

"We'd better get over to the observatory and deal with the people as they come."

IN SILENCE they went across to the twin buildings of machine hall and observatory. On the way they passed Brooks in the midst of his workers, giving sharp instructions. Already a file of men and women was moving towards the adjoining observatory. By the time they had arrived Doughas and the girl were in position by the telescope, awaiting them.

Douglas made a note of each one's capabilities and then surveyed them as they stood waiting. He could not help but notice the signs of strain and overwork on their faces. "All you have to do, is study each machine

and instrument here and see what use you can make of it," he said quietly. "When you have found out all you know let me have your reports."

"How long have we got?" asked one of the men in a grim voice. "There's no time limit." Douslas told him.

"Nothing worth while can be learned in a hurry."

The men and women glanced at each other

in surprise.

"But Mr. Brooks sets a time limit on everything we do," one of the women remarked. "If it isn't done in that time he sives the women extra work, or else punishes the men."

"You are not answerable to Brooks here,"

Douglas replied, "I am in sole charge of this

Then he turned away deliberately. The men and women looked around them, obviously a little dazed by their unexpected good fortune. After a while they began to work on the machine or instrument nearest

to hand.

For half an hour Douglas watched them tacitly, Vera beside him, then he said in a low voice.

"You take the folks on the left. I'll take those on the right. Talk to them. Let them see we value them. Give them cooperation as they've never known it since they came here."

"Right!" the girl agreed, and then off she went.

Douglas turned to the other side of the room and stopped beside an elderly man who was thoughtfully studying a spectroheliograph.

"Everything okay?" he asked, with a pleasant smile. "Eh?" The man started nervously. Then in a quick voice he answered. "Yes, yes, sir-

a quick voice he answered. "Yes, yes, sir everything's okay. I'm not very quick at my age, I'm afraid. This is a bit different to watchmaking."
"Take it easy." Douglas interrupted. "No

hurry remember."

The man relaxed.
"I'd—I'd forgotten. You're so different to
Mr. Brooks. He's very—well strict. Not

easy to forget it."
"You will," Douglas assured him, and moved on to the next worker....

CHAPTER XIV

The Presence Returns

UNSTIONING them in a leisurely fashion, Douglas had a word with all of
them on the right hand fide of the observatory. This done, he left them all to their
own devices and went for his usual visit,
with Vera, to the underground arsenal. When
they returned they found the workers lined
up with their reports, waiting to be received
and checked out.

Douglas took each report with a nod of thanks. When he had finally been handed the last one one of the men spoke up.

"I'd like to thank you, Dr. Ashfield, for the way you've been treating us. I'm speaking for all of us here. If there was the same fair-mindedness elsewhere, this plane wouldn't be such a bad place after all."

"The remedy is in your own hands,"
Douglas answered quietly. "If you don't like"
Mr. Brooks' way of doing things, tell him
sol !'Ill back you up."

"That's good hearing, sir, but—well, I straid Mr. Brooks has ways of enforcing wishes. He's got scientific instruments which can crush any objections by force."

"I still say I'll back you up." Douglas replied "You don't have to object immediately. Wait until you have a really good reason. Until then, you'll be working for me here. If you can get others to work here as well, all to the good. You'll receive fair treatment."

The man nodded gratefully and turned

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away with the men and women about him. Ercidently be had given matters some thought too for the next day a hundred more workerreported for duty. At this number, howwere forthcoming. So, for a week at least, all seemed to go quite smoothly without any signs of friction from the workers under Brooks' direct control, though all of them knew by now that he was the ode reason with cear and lack of occperation were preside out of the control of the control of the conside of the control of the control of the conbit cear and lack of occperation were pre-

There were, of course, certain spirits who sagreed with him in his methods-or else it was that they were smart enough to play along with him in the shope of getting something out of it later. These few he placed in charge of small groups and the consequent relaxation of labor for them was just what they wanted.

Then came the breaking point. Douglas and Vors, in the observatory, were busy amongst their own team of workers one morning when the noise of angry voices from somewhere outside reached them. They had hardly moved towards the observatory sulter door before a woman worker sys-

hing in, her eyes wild in fright, blood ing from a vicious cut across her face. tor Ashfield—Sir! Please! Help me!"

aught imploringly at his arm and then fruge behind him as a woman entered the observatory abruptly, a short-nosed whip with a fine metal lash in her hand.

"Don't let her hit me again!"

The woman squeezed herself against

Douglas, covered her bleeding face with her hand.

Douglas put a reassuring arm about her shoulders, then turned to face the female

guard who came slowly to a halt, her square face set hard.
"Tm sorry this had to happen, Dr. Ashfield," she said briefly. "This woman went crazy and dashed away. She had no right to

bother you with her nonsense."
"She had every right—and you are trespassing on my territory!" Douglas retorted.

\*Leave at once!\*\*

The woman half turned then paused as there came a sudden surge of workers through the doorway, their shouts clearly showing their sanger. Before Douglas could do a thing to prevent it they had seized the woman guard in their midst and bundled her

outside.
"They'll lynch her," Vera gasped.

Douglas thrust the injured woman into the girl's arms and dived for the doorway. By sheer main strength he fought his way to the center of the disturbance where the female guard lay on the ground, her clothes torn, her face and neek scratched and cut. With a jerk Dougles got her on her feet. Then Brooks himself came pushing through the

"What's going on here?" he demanded, glaring round. Then at the sight of the woman he gave a start. "They did this to

you?"
"And with good reason," a man retorted holly. "She hit my wife across the face with that whip of hers. I saw her do it. This sort of thing has gone far enough. We're quitting!"

ROOKS looked about him, pale-faced, his lips tight. Then he turned as from the observatory came the whipped woman herself, blood oxing from the cut on her face. Vera helped her gently forward. Behind them came the workers under Douglas'

control.

"You're getting things into a nice mess
with your force policy, Mason," Douglas
snapped. "It's got to stop!"

"Oh?" Brooks smiled bitterly. "It's got to stop, has it?"
"What do you other workers stay with

this slave-driver for?" shouted the elderly man who'd been a watchmaker. "Work for Doctor Ashfield here and get yourselves a square deal!"

There came a grumble of rage from the

gathered people. Brooks glared round on them.

"Because a woman guard has been over-

zealous is no reason for such hostility," he shouted. "I've only been firm in my rules for the common good."

"Aw, shut up! We're not working for any

"Aw, shut up! We're not working for ar tinhorn dictator any more!"

There were surgings and movements in the crowd. Brooks stood his ground, and nobody attacked him directly though they came dangerously close. Soon even he could see that all but perhaps a hundred or so of the workers drifted over to the spot where Dourlas and Vera were standing.

."This is very interesting," Brooks said at last, trying hard to keep his fury under restraint. "Out of some two thousand people I have a hundred left who are loyal to me. I suppose you think, Douglas—and you too, in them

Sis, that this is a resounding triumph for your precious policy of share-and-sharealike?"

alike?"
"It's a triumph for ordinary decent people who refuse to be kicked around, anyway,"

Vera answered candidly.

The physicist looked at the grim-faced men and women who had elected to stay

with him, chiefly because they knew just how much power he could wield when necessary.

He gave a cold smile.

"I never thought that when we set out to be be be set out to the way." he said. "Since it has to be I'm not shirking the issue. In a scheme as huge as this there just can't be two masters. It has either got to be run my way—or yours,

and the people must follow the victor."
"How do you propose to put it to the test?"

Douglas snapped.
"You'll see! You know I have the means

Then his mouth set harshly.

of making my will obtain. You have nothing but some one thousand nine hundred men and women who won't be able to stand five seconds against scientific destruction." Brooks paused and reflected for a moment.

"I'll give you until ten tonight, Douglas, to think things over. By that time you workers must come back to me, and your infraction will be overlooked. If you don't come, back I'll give you such a terrible time you'll

finally come crawling on your bended knees."

He turned away with an impatient movement and went striding off to the small headquarters building with his hundred devotees.

quarters building with his hundred devotees trailing after him.

Around Douglas and Vera a silence dropped, save for the self-piteous sniffing of

the woman who had been whipped.
"You'll help us, I suppose?" the woman's

"You'll help us, I suppose?" the woman's husband asked bluntly.

"How can he?" demanded another.

"Brooks has all the science. Best thing we can do is wreck the machinery and stop him that way."

"You can't wreck machines like these,"
Douglas said quietly. "They are foolproof.
But I gave you my word I would stand behind you and I meant just that.

"I want you all to go to your homesites and collect provisions for about three days. Then this afternoon you will join Miss Brooks and myself on that plain over there. here is the only answer to this deadlock so maids brooks belief in his own rightless—and therefore his complete disregard for the movements of the renegade workers during the state of the renegade workers during the state of the st

www. The splans to deal with the situation if agreement was not forthcoming, and his first act was to look towards the plain. He beheld not a single trace of the workers who had been just visible as a remotely distant blur of black.

For an instant suspicion crossed his mind, and then faded. The most likely explaination was that they had all run for it. In that case they would be back, and forced to heel. So he spent the rest of the late afternoon and evening showing his hundraf followers how to operate the various ray-projectors and weapons of destruction in the armament had.

"With these we can deal with any engency," he explained. "I will give the when to use them, and it will only be event of genuine attack. I want every er I can get who is willing to return.

confounded strike has upset my schedule!"

On this note he left the matter and waited, consulting his watch at intervals.

Far below him, a mile and more, the workers who had followed Douglas and Vera were getting over their first pleasurable shock of discovering a mighty armament dump at their disposal and were learning how the robots, planes, tanks and projectors worked

"Not that I like any of it," Douglas comfessed, as his watch showed it was sevenessed, as his watch showed it was seveo'clock in the evening, "But if it has to be civil war, that is the end of it. Mason Brooks is one of those kind of men who is not wilfully victous but misguidedly ambitious. He's got to learn—by hard "5". And at ten o'clock well show hi'.

The workers in the Rue avern murmured an assent. Then at Douglas' order, they settled down to a.meal. In this manner another hour passed. From that time on until ten o'clock was a period of intense mental strain for Douglas. He realized that many things might happens.

He might make mistakes in controlling the huge robot system of warfare. Or, to spike his guns, Brooks might cut the power of the central tower and thereby bring things to a halt. But since Brooks didn't know what was afoot anyway, and because stoppage of power would queer his own plans, too, this

didn't seem a likely possibility.

The only thing was to chance it. At five to ten Douglas made the first moves. He had the trap opened onto the plain, and he sat by the switchboard in readiness to throw the master control. Vera was beside him, and stretching back into the distances, alert and

intent, were the workers.

The second hand of his watch flicked round

-0:56 9:58 9:59

"Okay!" he snapped.

He waited, but nothing happened. He found himself gazing at dial needles which had dropped to zero on their scales.

A second or two later, the lights in the hall went out and left only that dim oblong open to the starry sky about two miles away. The big heating grids against the walls were palling into pink bars and thence fading into blackness.

The silence was intense for a moment, a silence born of utter surprise and disappointment. Then shouts came out of the dark

"The power's off!"
"This is Brooks' doing!"

"He's found out about us!"

Douglas sat trying to reason the mystery out. He felt Vers pressing against him as the people surged forward past her into the open air.

"Can't see how he could have found out,"
Douglas said at last, puzzled. "Nor can I
imagine why he'd cut the power and so kill
his own chances. We'd better get outside
and see what's going on."

He got up and with difficulty found his way along the aisle to the slope leading to the oblong opening. Vera clung to his arm, and the people, chattering and arguing among themselves, followed him out under the fantastic stars.

In the dim distances across the plain the ruins of the city were utterly black. This in itself was unusual since it had been Brooks' practise, since the restoration of power, to have the powerful lights blazing from all sides.

"May be a trick," Vera warned. "Better take it easy." "We'll all stick together and head for the city," Douglas decided. "Come on."

They began to advance slowly in a tightly packed body, but before they had covered half the distance under the uncertain starlight, a black mass loomed ahead of them, and with the suddenness characteristic of

this weird place it merged into Mason Brooks himself and his hundred satellites. "That you, Douelsa?"

That you, Dougla

IS sharp, authoritative voice floated out

expectantly.

"Yes," Douglas assented. "What have you

done to the power?"
"The power? What should you need power
for?"

Douglas was silent for a second or two. He had forgotten that the physicist knew nothing of the arsenal. It was Vera who spoke next and cleared up the uncertainty.

"We needed power for a robot army to teach you a much needed lesson, Mace. Just as we were about to use it, the power failed." Brooks came forward in the gloom until Douglas and Vera could faintly discern his features.

"So you had a robot army, ch? So that was where you vanished to, I guess you must have been smarter than I imagined. Well, it didn't do you much good, did it? And I didn't cut off the power either. I was all prepared with my defensive weapons to ward off whatever you sunt against me—and and the light went out! Not a single power unit is in action, not even the self-powered machines. Even betterles have goog flat."

"All power couldn't just fade out like this," Douglas protested, as mutual antagonism was forgotten for the moment in face of this major, problem., "It must have—"

He could not finish his sentence for he was drowned out by a sudden cry from a woman in the gathered hundred behind Brooks.

"The sky!" she shrieked. "Look!" Every eye gazed upwards, and in spite of

himself Douglas felt a curious little thrill pass through him. Something warish-like, as impalpable as the Milky Way, was curied like vapor out of the depths of space. It sweep earthwards with an incredible velocity, blotting out the stars for a moment. Then upon every one of the watching people there estitled a sudden and immovable paralysis, the crushing load of a supermind probing into every brain

"Foois! Descendants of fools!" the voice of the Presence came to their consciousness. "In thousands of years of evolution you have not even yet learned how to handle the powers of science. Idiots! Little brains! You had the keys of infinite progress in your hands. You were rebuilding the city-albeit not entirely by methods which met with our approval-and then what? You disagreed. You forgot your aims, forgot everything, suddenly realized you must use scientific power to destroy each other so that one or other of you could rule.

"You, Mason Brooks, were the cause of that. But to single you out as the prime criminal would be nointless. All of you are to blame-squabbling, fighting, preparing to destroy machinery which it took cycles of careful thought to create, all so you might assert your own miserable, petty wills."

The scathing bitterness of the mental voice had such nower behind it that it wrenched every nerve and organ. It went on:

"We decided that you should not be allowed to do it. You are not fitted to inherit this great four-dimensional plane with its mighty scientific secrets. You have much yet to learn before you can even approach the attainments of the lowly people of the world you call Mars.

"You are but barbarians who have many generations of refinement to undergo before you can even hope to be admitted into the antercom of the vast universe we hold in trust for you. Yes, we decided that you are unworthy.

"We placed a negative influence over the machines. Mind is ever the master of matter, electrical forces, and elemental powers. We willed that not a single machine should work, that power be taken from you."

Again the pause and the dreadful silence indicative of vaster thoughts to come,

"You have failed. You will have to learn how to defeat greed, personal power, mad ambition, before you are even worthy to move a single power switch in this plane. Bereft of power you could die here, but that is not our wish

"We have decided that you shall be returned to your own plane, there to remain until sense, and the refinement of centuries. teaches you to handle an exquisite gift with reverent care."

The voice ceased-but the sense of paraly-

sis increased to awful, crushing proportions. The people cried out in sudden anguish. Douglas felt Vera clinging to him. He could hear Brooks cursing the Presence huskily.

Then suddenly there was a blaze of light which seemed to consume the universe. At the same moment the ground shook under the impact of a myriad of thunders. There was a mighty rush of air, a blast of intolerable heat. Douglas went flying through emptiness to land on his face with a mighty detonation roaring in his ears . . .

## CHAPTER XV

Eves Without Vision

TWOURS LATER, Douglas found himself lving amidst rubble and broken stone, pieces of debris falling upon him even as he stirred. For a second or two he hardly moved. After awhile the distant sound of ambulance or fire-engine sirens came to him and he made an effort and looked about him.

He gave a violent start. At a distance were the gleaming lights of New York's familiar buildings, but around him for an area of nearly two square miles there was a shambles of fallen stone, crumbling plastic walls, and fantastically twisted girders. An explosion of inconceivable power had occurred.

As he clambered unsteadily to his feet he could see other people getting up too, moving bewilderedly, trying to find out where they were. A hand gripped him, It was Brooks, his pale face streaked with dirt and blood, his usually immaculate hair hanging lankly about his forehead. "Where's Vera?" he demanded hoarsely.

"Help me find her." Douglas did not need to be asked twice,

Nor did they have to search for long by themselves. The ambulances and fire engines were soon on the spot, and with them came a huse army of sightseers who gazed wonderingly in the light of the hastily erected. floodlamps upon a battered, bruised and confused file of survivors being interrogated by the police.

Ignoring all the commotion about them, Douglas and Brooks kept close to each other, here and there coming across a dead body. here and there releasing an injured man or woman. When this happened they called an ambulance man to take charge of the victim. At last they discovered the figure they sought for, sprawled on her back amidst the fallen girderwork and stone. Fortunately Vera was not buried, but she had certainly been badly mauled. Her clothes were torn, one arm was lacerated, and—

"Good Heavens!" Douglas whispered, as the floodlight caught her face and the ambulance men came up. "Look!"

The physicist stared dumbly. Those extraordinary artificial eyes were splintered both of them—their lennes prowdered irreparably as though they had been hit with a hammer. Neither man spoke—the shock was too great. They watched as the girl was placed on a stretcher and carried away. Then they followed mutely to the ambulance in which she was placed.

They were about to climb in and keep her company to the hospital when a police inspector held them back.

"Particulars from you two gentlemen, if you please. What happened here? Nobody seems to know." The officer stopped, gazing at Brooks. "Why, isn't it Mr. Brooks? The

at Brooks. "Why, 1981 it Mr. Brooks? The man who discovered the fourth dimension?" "Yes, and the man who got thrown out of it too!" the physicist replied acidly. "That's

what caused this havoe."
"So that was it! We thought it was a
chemical explosion. The Chemical Institute
had storerooms here you know. Two whole

blocks of buildings went skywards. Is that your sister on the stretcher there?"
"Yes, and we're going with her." Brooks turned away impatiently and climbed into the ambulance with Douglas behind him. But, determined to finish the job, the in-

spector followed them into the vehicle.
"This sort of happening takes the shine off things, sir," he commented, as the ambulance doors were slammed. "You were all set for being feted when you returned from the dimension—but after this destruction and

loss of life I'm not so sure."

"Feted?" The physicist took his troubled eyes from the unconscious girl. "What the devil for? I was as good as bounced by the City Scientists for my work."

"Yes, but you proved your words afterwards. Or rather Senator Goldman, Walbrook Deen, and even the President did so by measurement of the property of the property of the public speed words to the fourth dimension in Central Park. That couldn't be called a trick, sir. Walbrook Dean had to definit the mishky discovery you had made.

The President ordered that you be acelaimed a great scientific discoverer when you returned."

Brooks grinned crookedly.

"Well. I have returned! The rest is up to

the people and the law!"
The inspector nodded, took down the particulars Douglas gave about himself. By the time this was finished, they had reached the city's main hospital. Silently the two men followed the girt's stretcher-bearers directly into the operating theater. This was as far as they were allowed to go. The doctor in

charge sent them out into the antercom once he had made his examination.

"She'll live all right," he announced. "At least you have that to be thankful for. On-cussion chiefly, and that cut arm. Soon fix up those troubles. What worries me chiefly are her eyes. Offhand I'd say she has some peculiar form of cataract, yet on the other hand they look like smashed unbreakable gless. It's most peculiar."

COUGLAS interrupted the surgeon. "I can explain it. I'm Douglas Ashfield, stricken from the register by the Ophthalmic Council after giving Miss Brooks two artificial eyes. Those are the ones I made for her. Smashed completely. I'm afraid."

"Ashfield!" The doctor gave a start. "Why, of course. I remember the case. And I couldn't see why you shouldn't be right. Anyway, you must have been since these

are the very eyes."

"Leave them just as they are," Douglas instructed. "No fragments will dislodge into her brain. I've made them incapable of that. Let me know when you have patched her up and restored her to near-normal. The eyes I'll try and fix myself."

"I'll do that," the doctor nodded. "And good luck!" He turned back into the operating theater

and the two men began to walk slowly down the corridor, side by side. They had nearly reached the front exit before Brooks made a comment.

"You know what happened, of course? That explosion?"

"Not exactly. But I imagine the Presence

had something to do with it."

"He—they—it, what ever it was, must have forced both planes to coincide for a brief second, which caused that appalling havoc. In that moment all traces of the four dimensional atomic arrangement of our bodies was

altered back to its normal status and we returned here with devastating force."

"So that was it. Well, what happens now?"
"We so back there at the earliest oppor-

tunity, of course."

They came to the front entrance of the building, and naused.

"You serious?" Douglas demanded.
"Certainly I am. You don't think I'm go-

ing to let all that science pass us by, do you? I bave the transition machine for doing the job in my laboratory, remember. We'll rest awhile first, and you'll get Vera right again. And don't forget that she must have that double vision again. It's useful. Makes it easy for us to see what's going on in two places. Back we'are going, whatever happens."

They went out into the street and began to walk towards the city center, regardless of the dried blood on their faces and their fifthy appearance. The things that had happened to them had blunted all remembrance of convention. In any ease there were not many

people about to see them at this hour.

"I suppose that we should go back," Douglas said, after due reflection. "But we'll have to act differently when we get there, Mason. Squabbling as we did. We spoiled it!"

Brooks gave a faint grin.
"I suppose we did really. But I'm not go-

ing to play second fiddle when I do go back. I'll work without labor. I'll get those robots -you found to do it. But I am going to bave that science! Now let's forget it for a moment and get a bath, something to eat, and then some sleep. We'll tackle things better in the daylight."

Douglas nodded and they said no more until the Brooks home was reached. The physicist let himself in with his own latch-key and before doing anything else went straight through to his laboratory. He switched on the light and took three paces towards his transition machine—then he stopped dead. Douglas, immediately behind him, paused too and stared fixedly.

The machine was no longer a magnetic device magnificently created, but a burned out hulk of twisted metal-work and shattered wires and tubes.

"What the devil!" Brooks shricked, and swung round violently just as the manservant entered sleepily in his dressing gown.

"Oh, it's you, Mr. Brooks. I heard sounds."
"Who's been tampering with this machine?" Brooks raved at him. "Who's been

in here during my sbsence?"

Jefferson gazed at the ruin and blinked"Why, nobody, sir. You gave me those or-

ders, Only you had the key. Maybe that explosion tonight did it." "Explosion, rats! Somebody has deliber-

ately wrecked this machine!"
"I-I just don't know, sir." Jefferson stood
awkwardly waiting as Brooks narrowed his

eyes sharply.

"Okay, you can go back to bed," he

snapped.

As the man shambled out Brooks eyed
Douglas grimly.

"Whom do you suspect?" he asked slowly. Douglas shrugged.

"At a rough guess—the Presence!"
"Exactly." The Presence! That all-how-ing all-destructive, all-encompassing mass of confounded interfering mind!" Brooks broke off and breathed hard. "I shall have to build another one, that's all. If this has goon, it's a certainty those others which were used didn't burn themselves to scram pental making the transitions for the two thousand. Yes, Vera can describe one to me, as she did before. Once you have made those eyes for her."

OUGLAS' eyebrows went up in surprise. "You didn't make a formula then?"

"No need. It was described, so I built it. I was too excited to bother with details. Maybe it was silly of me. About these eyes for Sis—How long will it take you?"

"Depends on the damage. Complete eyes

would take me ten years. If the damage lies in the synthetic cornea, as I think it does, I can cure it in three weeks."

"Good!" Brooks clenched his fists. "The moment she has recovered consciousness, get busy!"

Early the following morning the police were the first callers. They added particulars to those aiready taken, and from their observations neither Brooks nor Douglas was left in doubt of the fact that they would be held responsible for the explosive entastrothe of the nevious nich.

Immediate arrest was prevented, however, by the special order of Walbrook Dean, who also ordered a thorough search into the scientific implications first. With this purpose in view, he summoned Brooks to his private chambers for an interview.

While Brooks grudgingly complied with the order. Douglas headed for the hospital to see Vera, now fully conscious again. He found her in bed in a private room, her head and lacerated arm bandaged and her health apparently normal again if the vigor of her

voice were any guide.

"Doug!" She gripped his arm as he came to the bedside. "You are not hurt-or so I'm

"So you can't see me?" he asked quietly. "No. Everything's grav, like a thick, milky mist."

He gripped her hands tightly. "Then you can see a grayness?"

un.

"Nothing else. And I can also see variations in light and shade, when somebody blocks the sunlight for a moment. But actual vision has gone. Just-just what does it mean?" she asked, her voice low, "That I'm blind again?"

"For three weeks or so, yes. The light you can see now shows that only the surface of the cornea has been shattered. The eve apparatus behind it is undamaged. Otherwise it might have taken me ten years to fix it

He felt her give a little shiver. "What happened exactly?" she asked pres-

ently. As briefly as possible he told her, and added a few words on the destruction of her

brother's machine. "But surely, Doug, Mace isn't still trying to get back to that horrible place?"

"I'm afraid he is, and I can't blame him In spite of what happened, it is too wonderful a land and far too scientific to be lost. We can go back there, very much humbled, once I've fixed you up with two visions again."

"Just so that I can start to describe machinery to Mace! I don't want to do it. I want normal eyes and peace of mind. Please."

"It's a selfish view," he murmured. "I have still my own idea of giving everybody their rightful heritage to put into practise.

you know. You have your part to play." He patted her hand as she remained silent,

"Now I've got to be going," he said gently. "I must get to work on those new lenses right away. When you're ready to leave the hospital, I'll see you home. Or else Mason will. He's been called for an interview with Walbrook Dean. That's why he didn't come along with me to see you."

Soon after Douglas left her. She was still protesting against Mason's scientific ambitions, however. As he went on his way pensively through the hospital hall, he found his

arm suddenly gripped. "Why, Dr. Hurley!" he said to the man

who had stopped him. In some surprise he took Hurley's extended hand and shook it. The Chairman of the Ophthalmic Council eved him levelly for a moment.

"Glad to see you again, Ashfield," he said briefly. "I've been doing a lot of thinking about that operation you performed on Miss Brooks. That four dimensional business brought things to the front. Seems to me that, even if you did give her four-dimensional vision, you at least gave her eyes, of sorts. You overcame her blindness."

"Good of you to admit it," Douglas commented, uncompromising,

"Oh, I don't blame you for feeling hurt! I've been talking to the head surgeon of this

hospital. He came to see me last night after Miss Brooks had been brought in here. He insisted that I come and look at her artificial eyes, despite their damaged state. I did, and -" the Chairman cleared his throat-"you did a good job, Ashfield. There's a lot to be said for your courage in throwing away your practise to risk doing it."

"Just what is all this leading up to?" Douglas asked grimly.

PENHE Chairman of the Opthalmic Council

leaned forward, his face intent. This. Can you cure this girl again? Can you fix her up with normal eyes, and not double-visioned ones?"

Douglas was silent for a moment. "And if I did?"

"If you did, and her eyes responded to every test we could make, we would not only admit you back to the Ophthalmic Council with a public apology, but would also confer on you the highest degrees the council can give. We would also put you in charge of a laboratory specially devoted to the making of Ashfield Synthetic Optics. Your name would rank among the immor-

tals of science." Douglas eved the Chairman pensively and made a quick gesture.

"After all, Ashfield, it means something, doesn't it? Full restitution! I would not have gone out of my way to find you, as I have this morning, if I did not mean it. I was told at the Brooks' residence that I'd

find you here." Douglas' mind strayed for a moment to the recollection of that huge power awaiting the human race in the fourth dimension.

He gave a faint smile. "I cannot guarantee that the eyes will be normal," he said. "They may still see in

two places at once." "That will be a pity for everybody," Hurlev sighed. "Anyway, do your best and let me know how you get on. When do you

start on these ontical repairs?" "Today-the moment I get home."

"I'll drive you there. My car's outside."

## CHAPTER XVI

Glory That Was

DDLY enough to Douglas' surprise he found Mason Brooks waiting for him when he reached his home. The physicist was pacing impatiently up and down outside

the front door. "What news?" he asked, as Douglas fished for his key and then slipped it in the lock. "I can ask you the same thing," Douglas

Brooks stared after the retreating car, and frowned.

"Was that Hurley of the Onhthalmic Council?" "It was he all right. Come along in."

Douglas entered the hall and walked through into the rear room of the house which he used as his own testing department and lens-manufacturing laboratory.

"Hurley has offered me full restitution, honors, and a name in lights," Douglas said, throwing down his hat. "If I can make Vera see again."

"Funny how we both seem to be bringing these higher-ups to their senses," the physicist mused. "Walbrook Dean is quite convinced of the existence of the fourth dimension after what has happened. Or else it is that he's afraid to admit otherwise for fear of public opinion. Those vanishing folk in Central Park apparently made us candidates for an inscription in bronze."

"So what happened?" Douglas asked.

"I have been reinstated among the City Scientists. Not as the Chief Physicist but as the head of a new department devoted to study of the fourth dimension. At the earliest moment I want to show Walbrook Dean that this dimension really exists, which I can do the moment I have a machine built." "Does your reinstatement rely on you do-

ing this? "Not at all. I'm reinstated from this mothat old hidehound doven what the other

ment, but I'll be better pleased if I can show plane really looks like. Needless to say all police charges have been dropped. The trouble last night is now legally called a scientific accident. Well, that's my part of the happenings. Now, how about Vera? How's she faring?" "I can give her fresh corneas for her eyes

in three weeks." "You can!" Brooks' face lighted. "Then

she'll be able to see that machine-again and ultimately we can go back over there, "

Douglas was silent, toying with the screws on his lens-grinding apparatus. "My own restitution and name in lights

carries a proviso," he said slowly. "Vera's eyes must be normal!" "Normal! You-you mean blind to the

fourth dimension?" "Just that. You see the spot I'm in! On the one hand I want my vindication and to

hand this eye discovery of mine to humanity. On the other hand I think we should go back over there. I just don't know which to do." Brooks clutched his arm tightly.

"Good grief, man, how can there even be a doubt in your mind as to what you should do?" Brooks cried. "What are a few petty bonors from the Ophthalmic Council compared to what we can have in that other plane? A whole universe, if we play our eards right with Vera as the king-pin. You've

got to give her the same eves as before." For a long time Douglas stood meditating. Then he nodded. "Okay, you're right. Now do me a favor,

will you, and leave me to it? I've got to work on this job alone, give it all my concentration. You might slip over to the hospital and see Vera. She was asking for you." The physicist nodded and hurried out.

Slowly Douglas drew off his coat and slipped into his white coverall. Going over to the safe he took out the precious formula be had devised for mitonex lenses and studied it. When its details began to return to his memory, he began to get to work.

To his satisfaction the job took him slightly under three weeks, and he was then given every facility to operate in the city hospital. Dr. Hurley had had a hand in this, however, and on the day of the operation he was present in the theater's observation balcony, staring down through plastic glass—in the company of his Opthalmic Council colleagues —upon the table below, Douglas' masked and white-garbed figure and that of the attendant nurses beside it.

The most anxiously watching person of all was Mason Brook. Immeaulate, his dark hair gleaming as it lay back from his fine forehead, he stared down in concentrated attention from the balcony opposite that of the ophthalmic experts. A little distance sway from him, also watching keenly, was Walbrook Dean, his rugged face in profile to Brooks' occasional glances.

INITE lights came up below in shadowless glare. There was the glut of instruments in Douglas Ashfield's gloved hands. High in the roof television eyes, telescopic-lensed, were casting every detail of this amazing operation in opties to an interested world outside.

Douglas knew better than anybody else

that he was throwing away world-fame even as he worked. Made to identically the same formula, the new cornea would not give single vision but, unless the immutable law of mathematics was a liar, precisely the same double vision as before.

Vera was not under a sleep-producing anaesthetic this time. It was a purely local one with no sense of discomfort to her artificial eyes. But she was strapped down so tightly she could not budge her head a fraction of an inch.

Fixedly she stared into grayness, could feel Douglas' busy hands at work and the delicate probing of his instruments. Now and again she heard his strained voice giving sharp orders.

again she heard his strained voice giving sharp orders. Suddenly one\_eye went totally black and a little chill stole to her heart. The other followed it and left her in a void which was

infinitely dark and terrible.

"Nothing to worry about." Douglas murmured in her ear. "I have taken out the shattered corneas. You have no light-gathering capacity at the moment."

He laid the broken corness on one side with platinum-tipped forceps. Then working with infinite care he began the delicate job of alding the new hemispheres into position under the girl's eyelids, after which they would remain in position by the natural suction of the eyebsil's own curvature. The girl fet the edges sliding unbearably against he eyelicis, despite the local annesthetic. She gave a little cry as, with a transient stab of pain, the first cornes allipsed into place and gentle, rubber-tipped fingers closed her cyclids tightly and laid wadding upon them. A brief pause followed. Then she went through the same experience with the other eye. This was closed, too, and coton wadding placed on it and tide into posi-

tion.

Straps began to unlosse. She was raised gently by Douglas' arm at the back of her shoulders. Strong restorative began to burn in her throat.

Douglas waited a moment or two while the girl's nerves were steadying again and her pulse rate dropped to normal. Briskly he signaled to the watchers in the belconies. They turned and descended the rear stairs immediately came filing into the theater.

"Excellent handling, Ashfield," Hurley congratulated. "Now for the results."

"I think we are ready," Douglas answered in quiet tones. For a moment his eyes strayed to the tense face of Mason Brooks as he stood rigid with anxiety.

rigid with anxiety.

The assembly waited. Douglas reached behind the girl's head and unfastened the tape.

The waddings fell away.

"Open your eyes slowly," Douglas ordered. Vera obeyed, allowed her eyelids to fileker apart. When at last they were fully open there was a little gasp from the group of oculists. Her other eyes, before the break-age, had been mavelous imitations of the real thing, but these were even better. Either or in the lights of the theater. But there was a definite translucency. They were big, gray, ad woodering. She stared steadily in front

of her.
"Well?" Douglas asked tensely.
"I can see—clearly, wonderfully!" she
whispered. Her voice rose. "Yes! Every
detail of every thing, near and far, up or

down. Far better than I ever saw in my life before! Oh, Doug dearest, you're the greatest eye-surgeon who ever lived." "Do you see double, or single?" her brother asked in a strained voice, coming to

her side.

"Single, of course. Not a trace of anything else. I see as normally as you do."

Brooks stared at her, his face going whiter than usual. Just for a second an outburst seemed to tremble on his lips. Then he forced the ghost of a smile.

"I'm so glad." he said, almost inaudibly. "For your sake. I'll-I'll see you later on."

WURLEY came forward and stared into

the girl's eyes fixedly. "Hmm, seem all right to me," he commented. "Are you prepared for our tests,

Miss Brooks? "Surely," the girl assented. "But I'd prefer

to sit in a chair instead of on this table." "Of course, of course."

She was helped from the table into an armchair. Then under Hurley's directions apparatus was wheeled in from outside. The lights were switched off and for half an hour he and his fellow wizards of the optics studied and peered until she was dazzled by their lights and lenses. At last the illumination returned and she relaxed with a thankful sigh.

"You've done it, Doctor Ashfield," Hurley pronounced, holding out his hand. "The most brilliant optical advance of the century! The whole world shall hear of this. The city will make its gratitude known to you publicly at a banquet in your honor, at which Miss Brooks of course will also be present. You will be notified of the date through official sources. And thank you, Miss Brooks, for

your cooperation. Come, gentlemen." They filed out, talking among themselves at the wonder they had witnessed. Then as the last man vanished from sight, the lone figure of Brooks came into view again. He came forward slowly, stopped at last within

two feet of Douglas. "What happened?" he asked bitterly.

Douglas did not answer. Instead he looked at the girl.

"You mean that you can only see singly?" he demanded. "On my word of honor," she nodded, "And

I'm as surprised as you are. Anyway, I couldn't fool men like Hurley and his dis-

ciples with the apparatus they've got. My vision's dead normal." "Then what the devil went wrong?"

Brooks exploded. "Don't you realize what this means? Our last chance of seeing into the fourth dimension, of getting there again, has gone! I can never remember how to make a second transition machine from memory. Doug, what have you done, man?"

"Tve followed out the cornea formula item for item," he answered doggedly. "It is the exact same material, the selfsame grinding, the selfsame field of focus and circle of vision. Everything is now just as it was before."

"But it can't be!" Brooks shouted. "It's different."

"I know." Douglas rubbed his chin slowly. "Let's sum the thing up. The cornea was responsible for Vera seeing the fourth dimension. A slight aberration in its curvature altered the normal range of light-waves and she saw two planes. Now I have done the exact same formula over again, things are normal to her. There is only one possible

explanation."

"Well?" Brooks rasped. "The grinding is not absolutely identical. It may only be a millionth of a fraction out on the orbit curvature but that, in the aggregate, means a lot. There are cases where spectacle lenses are made to an identical formula, yet the wearer swears he can see much clearer with one pair than with the other.

"The fault is not in the formula. It is in those infinitesimal details-a fraction out in the mechanism of the grinding enginment, a slightly less resistance in the surface of the lens material, even the action of temperature and humidity at the time of grinding. That is what must have happened here.

"The flaw which made a view of the fourth dimension possible has not happened again. It was, correctly, an unknown factor in my formula upon which I happened by chance, an unknown factor which I may never find again unless I happen again by chance. Because, of course, I don't know what the factor is. It's something ungovernable, the outcome of a correlated series of conditions which happened that once, but which now are missing."

Douglas stopped, his lips compressed. "We've lost the fourth dimension. I'm afraid," he finished "You can explain this away by everyday

Brooks, clenched his fists.

circumstances, by flaws in the aggregate, if you like," he snapped. "But I believe only one thing is back of it-that confounded Presence! First my machine-now your inability to reproduce a fluke of optics, to say nothing of the way Vera's eyes were damaged in the transition back to this plane. The door has been slammed in our faces and locked good and hard!"

"That's possible," Vera admitted, "And I suppose it will stay locked until we learn the meaning of sense, peace, and science."

HE physicist breathed heavily as he paced up and down. The thought is too much to bear," he

insisted. "All that wonderful science-a whole universe wide open before us, and now we've lost it! Just a glimpse of a mighty science, gone like a mirage. The marvels of generations have been blotted out with the finality of a falling star. It's abominable and unreasonable for it to be barved to us." "Just the same, it's gone," Vera said quiet-

He looked at her for a long moment and gradually a cynical grin spread over his lean features. "Out of all this I get reinstatement. That's

peculiar. "And I'm famous." Douglas gave a sbrug.

"I would certainly have liked to have given

people their four-dimensional heritage, but maybe it's a better thing to destroy the curse of blindness."

Brooks sighed

"Well, there it is! No good chasing rainbows, I guess. But I'll work myself as never before to find a way to duplicate that machine. I'm going back there-some day! No flaw in optics is going to stop me. And when

I do-" He broke off as he caught the eyes of his sister and Douglas fixed upon him

"I know, ambition," he said dryly, nodding. "Well then we'll forget it right now. At least we can celebrate four achievements -two reinstatements, new eyes, and a forthcoming marriage. How about a good dinner? Just to show there's no ill feeling. I'll stand the expense!"



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# The Dimension of Chance

## By CLARK ASHTON SMITH

On the trail of a future lap spy, a pair of Americans are cast through the stratosphere into a strange atomic world

CHAPTER I

Pursuit into What?



The o ter ready, warned Mariley through the audiphone from his seat at the controls of the rocket plane. "At this rate we'll come within range in a few minutes. Those Japs are good gunners, and they'll have a red-hot welcome for us." Clement Morris, Secret Service operative and

college chum of Andrew Markley, his pilot, in a swift and dangerous chase, inspected the cartridge-belt of the new and incredibly rapid-firing machine-gun, behind which be sai in lieu of the official gunner. Then he resumpd his watching of the bright metallic speck that they followed in the thin, dark, strless air of the stratosphere, twelve miles above the eastward-flowing blur that was Nevada.

They were beginning to overhaul the Japanese plane that had picked up the fleeing spy, Isho Sakamoto, near Ogden. Morris had been tracking down this preferanturally clever spy for months, under Government orders, plane of many American fortifications, as well as information regarding projected army movements in the war against the Sino-Japanese Federation that had begun a year, belore, in 1973.

The enemy rocket plane, descending unexpectedly from the isothermal regions, had rescued Sakamoto at the very moment when Morris was about to corner him. Morris had immediately commandecred the services of his old friend Markley of the Air Corps, then stationed at Ogden.

Markley's rocket plane was said to be one of the swiftest in the entire Corps. In its airtight hull, with oxygen-tanks, helmets and parachutes already donned in case of accident, the two men were speeding onward at an acceleration so terrific that it held them in

their seats as if with leaden strait-jackets. Morris, however, was little less accustomed to such flights than Markley himself. It was not the first time that they had hunted down some national foe or traitor in company.

sued and pursuer plunged toward the Sierras and the far Pacific.

Less than a mile now intervened betwist the two vessels. There was no sign of overibostility from the Japanese, which carried a heavy machine-gun equal in range to that of the American ship and was manned by a

or the American sinp and was manned by a professional gunner as well as by Sakamoto and the pilot. Morris began to calculate the range carefully. It would be a fair fight, and he thrilled at the prospect.

The spy, at all costs, must not be permitted to reach San Francisco, where the enemy had established a hard-won base. If the fight should go against them, he or Markley as a

#### EDITOR'S NOTE



OME stories are forgotten almost as soon as they are printed. Others stand the test of time.

Because "The Dimension of Chance," by Clark Ashton Smith, has stood this test, it has been nominated for SCIENTIFICATION'S HALL OF FAME and is reprinted

In each issue we will honer one of the most outstanding finantary desired of all rims as selected by our readers. We hope in this way to bring a new perenaneace to the science fiction agms of yesterday and to perform a real service to the science fiction devotees of today and tomorrow. Naminate your own favorities! Send a letter or post-card to The Editor, STARTLING STORIES, 10 East 40th

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A housiless thing with rapy areas and a puckered, mouth-like onfice tried to drag Merrix down.

last resort would summon other planes by radio, from one of the American bases in

California, to intercept Sakamoto
Far off, through the inconesvably clear air
on the enormously extended horizon, he
could see the faint notching of the Californian
mountains. Then, as the planes hurtled on,
it seemed to him that a vague, mixty hur
such as might appear in sun-dazzled eyes,
had suddenfy developed in mid-air beyond

the Japanese

The blur baffled him, like an atmospheric blind spot, having neither form nor hue nor delimitable outlines. But it seemed to enlarge rapidly and to blot out the map-like scene beyond in an inexplicable manner. Markley had also perceived the blur.

Markley had also perceived the blur.

"That's funny," he roared through the audiphone. "Anything in the shape of mist or cloud would be altogether impossible at this height. Must be some queer kind of atmospheric phenomenon—the mirage of a remospheric phenomenon—the mirage of a

mote cloud, perhaps, transferred to the iso-

thermal layer. But I can't make it out."

Morris did not answer Ansarsement checked
the somewhat inconsequential remark that
rose to hielipa. At that moment the Japanese
rocket plane appeared to enter the mysterious
blur, vanishing immediately from vision as
if in actual cloud or fog. There was a quick,
tremulous gleaming of its hull and wings, as
if it had started to fall or had abruptly
channed its course—and then it was gone be-

hind the hueless and shapeless veil.
"That's funnier still," commented Markley
in a puzzled voice. "But they can't shake us
by flying into any mirage or what-you-maycall-it. We'll soon pick them up on the other

IVING horizontally ahead at six hundred miles per hour, the vessel neared the strange blur, which had now blotted out a huge section of the sky and world. It was like a sort of blindness spreading on the upper sir. But it did not convey the idea of darkness or of anything material or tangible. Both Morris and Markley, as they neared

the felt that they were pereira to teromething the felt that they were pereira to teromething the felt that they were pereira to the the felt that they were the felt that the felt that

An instant more and the blut decoured the heavens with terrible momentum. Then, as the plane rushed into it, a blindness fell on the two men. They could no longer, discorn the vessel's interior or its ports. Ineffable greyness, like an atmosphere of cotton-wood, enveloped them and seemed to interest all visual images.

The roar of the rockets had ceased at the same time, and they could hear nothing. Markley tried to speak, but the cath of astonishment died unuttered in his throat as if before a barrier of infrangible silence. He might have entered some unfamiliar medium, might have entered some unfamiliar medium, and magnitus, one which refused to carry the vibrations of light, tooler and sound.

They had lost the sense of movement, too, and could not tell whether they were flying or falling or were suspended immovably in the weird vacuum. Nothing seemed able to touch or reach them. The very sense of time was gone, and their thoughts crawled suggishly, with a dull confussion, a dreamy surprise, in the all-including you'd. It was like the preliminary effect of an anaesthetic—a timeless, bodielss, weightless bovering in the

gulf that borders upon oblivion. Suddenly, like the lifting of a curtain, the blindness cleared away. In a strange, flickering, brownish-red light, the men saw the interior of the hull and beheld each other's goggled helmets and leathered air-suits. They became aware that the vessel was falling seroity and obliquely, with sharted floor, the summer of the summer of

He could not start them again. The entire mechanism refused any longer to obey his mechanism refused any longer to obey his sown a multi-colored chaos of outlandth and incomprehensible forms, into which the plane was deseending slowly, with incredible lightness, like a downward-floating leaf or feather. "I don't know what has happened or where

"I don't know what has happened or where we are," said Markley. "But I guess we might as well sit tight. There's no need to jump—we couldn't go down any more safely with parachutes. But what the heck have we gotten into, anyway?"

"Can't say," rejoined his companion, equally dumfounded and at a loss. "Whatever the place is, it's not the state of Nevada." Their descent toward the unknown, mystecontinuous terrain seemed to occupy many minutes. Once or twice the vessel hung motionless for a moment, then resumed its gliding with a jerk. Staring from the ports in ever-growing bewilderment, they began to distinguish separate forms and masses in the queer chaos

of scenery Irregular hills, mottled with grey, green, ocher and violet-black, lifted about them in the rufous light, and they perceived that they were settling into a kind of valley-bottom. The ground beneath them was partly hare partly covered with objects that resembled vegetable growths more than anything else. These plants or plant-like things, as the plane settled closer above them, displayed a remarkable diversity of shape, size and hue, ranging from leafless, limbless stems to great tree-forms with a crowded foliation that suggested some impossible crossing of araucaria and banana. The whole impression of this flora, even at that first glimpse, was one of lawless variety and illimitable grotesquery. The vessel slanted slowly down on an en, level tract, narrowly missing the tops of some of the taller growths. It landed with a light jar, little more pronounced than if it had been checked by the usual process of

careful deceleration.

Markley and Morris peered out on a scene that amazed them more and more as they began to perceive its innumerable oddities of detail. For the nonce they forgot the Japanese rocket plane they had been following, did not even speculate regarding its fate

or whereabouts

"Jumping Christopher" cried Markley. "Mother Nature certainly was inventive when she designed this place. Look at those plants—no two of them alike. And the soil would give a geologist the nightmare." He was now peering at the ground shout the vessel, which offered a remarkable mosaic of numberless element—a conglomeration of particulored soils, ores, and mineral forms, wholly unstratified and chaotic.

It was mostly bare and broken into uneven mounds and hummocks, but here and there, in patches of poisonous-looking clay or marl, peculiar grasses grew, with blades that varied in the same manner as the larger growths. One might well have imagined that each blade belonged to a separate genus.

busine belonged to a separate genus.

Not far away was a clump of trees, exhibiting monstrous variations in their leafage, even when there was a vague likeness of bole or branch. It seemed as if the laws of type had been disowned—as if each individual plant were a species in itself.

STREAM of some water-like fluid, varying strangely from peacock blue to cloudy amber in its course, ran past the

fallen plane and meandered through the valley toward a barren slope at one end. From this slope another stream appeared to descend and join it. flowing in a series of rapids and

low cascades from a hill-top that melted indistinctly into the reddish-brown heavens. "Well," observed Markley, after contemplating this milieu with a quizzical and slightly troubled frown, "the problem of how we got here is equaled in its abstrusences."

only by the problem of how we are going to get away. Somehow or other, we have fallen into a foreign world and are now subject to unfamiliar physical laws. Our nitrone fuel simply won't explode. There's something—

the Lord alone knows what—that prevents combustion."
"Sure the tubes are all right?" queried Morris. "Maybe we've run short of fuel." "Huh!" the tone was superbly contemptu-

"Huhh" the tone was superbly contemptuous. "I know this boat. There's nothing the matter with the rocket mechanism. And I loaded up to the limit with nitrone before we started. We could have chased Sakamoto

to the Great Wall of China and back again if necessary without refueling. I tell you, we're up against something that was omitted from the text-books. Just look at this unsoftly hole, anyway, it's like the

at this ungody Role, anyway. It's new the scrambled hallucinations of a hundred cases so of delirium tremens."

"I've monkeyed with hashish and peyote beans in my time," said Morris, "but I'll ad-

beans in my time," said Morris, "but I'll admit that I never saw anything like this. However, we're probably missing a lot by staying in the ship. What do you say to a little promenade? Sakamoto and his friends maybe

somewhere in the neighborhood. If they are, I'd like to get a line on them."

Very cautiously the two men unstrapped themselves from their seats and arose. In spite of their heavy gargents, they felt a

queer physical lightness that argued a lesser gravitation than that of Earth. This no doubt accounted for the leisurely fall of the plane. They almost seemed to float about the hull and found great difficulty in controlling and

calculating their movements.

They had brought along a few sandwiches and a thermos bottle of coffee. These, their sole provisions, they decided to leave in the plane. Both carried automatic pistols of a new type which fired fifteen shots with terrifically high-powered ammunition having

almost the range of rifles.

After making sure that these pistols were ready in the holsters which formed part of their leatheroid garments, and after retesting their oxygen-tanks and helmets, the men opened the sealed door of the hull by means

of a spring apparatus.

The air of the valley, as far as they could tell, was still and windless. It seemed to be quite warm, and they were forced to shut

al- off the heating-mechanism in their suits, om which they had turned on against the zero and of the stratosphere.

Almost vertically overhead a heavy and lopsided sun glared down, pouring out its light like a visible flood of reddish-brown liquid. A few clouds with unearthly forms if floated idly about the sun. Far off in the

w lower heavens, above dim slopes and crags, so other clouds went racing by as if driven by a mad tempest.

Trying to determine the course of their

Trying to determine the course of their descent into the valley, Morris and Markley perceived an aerial blur at one point in the heavens—a blur similar to, perhaps identical

with, the one into which they had flown above Nevada. This blur, it occurred to Markley, was perhaps formed by the meeting or overlapping

of two different kinds of space and was the entrance between their own world and the alien dimension into which they had been precipitated. It was visible in the reddish air like the "ropiness" or cloudy nucleus that sometimes appears in a clear wine. And it

someomes appears in a clear wine. And it was completely mystifying. "Which way shall we go?" queried Markley, as he and Morris surveyed the valley on all sides, perceiving much that they had not seen from the plane. At the end that bad

seen from the plane. At the tell cast of the plane been previously hidden, the vari-colored stream emerged from a narrowing defile of madly-tilted cliffs and pinnacles, hued as with petrified rainbows.

On both sides of the valley were long, irregular slopes and barren bluffs, looming

regular stopes and barren bluts, fooming vaguely above areas of fantastic forestation. One of these areas, lying on the right hand, approached in a sort of arc to within a hundred yards of the rocket plane, like the bastion of some unearthly fortress.

"I move that we head for the nearest tim-

ber," said Morris, indicating this mass of grotesquely varied growths. "I have a feeling, somehow, that I'd like to get under cover as quickly as possible. There's no telling, of course, but I have an intuition that Sakemoto and his compatriots are somewhere in the vicinity."

"Their visibility is pretty poor if they are,"

commented Markley. "We may have lost them altogether—maybe they got safely through that atmospheric blind spot, or fell into a more remote section of this ungodly world."

"Well, I'm not taking any more chances than I bave to. I don't care for the idea of a soft-nosed Japanese bullet in the small of my back."

my back."

"If rocket fuel won't explode in this world, there's no certainty that cartridges will

either," Markley pointed out. "But, anyway, we might just as well take a look at the woods over there."

#### CHAPTER II

The World of Chance



HEY started off toward the forest, trying to control the absurd lightness that sent 2 then bounding for twenty feet or more. After a few paces, however, the y found that their weight, was increasing rapidly, as if they had entered a zone of stronger gravitation.

if they had entered a zone of stronger gravitation.

They took one or two steps that were almost normal—and then floated off in Judicrous

leaps of a dozen yards that were checked suddenly as if by another belt of increased gravity.

The trees, which had seemed so near, retreated in a strange and disconcerting fash-

ion. At length, after many minutes of variable progression, the men saw the wood looming immediately before them and could study its details.

High in the heavens, above all the other growths, there towered two incredibly elongated boles such as might be seen in the delirium of hashish. About them a medley of lesser forms, no two of which displayed the same habit, leaned and crawled and squatted or masted themselves in monstrous

There were single plants that combined enormous moon-shaped leaves with others that were fern-like or lanceolate. Gourd-like fruits green on the same tree with others in the forms of tiny plums and huge melons. Everywhere here were flowers that made the most ornate terrestrial orchids appear posture of the control of the control of posture of the control of the control of posture of the control of posture of pos

All was irregular and freakish, testifying to a haphazard law of development. It seemed that this whole chaotic osmos in which the men found themselves had been shaped from atoms and electrons that had formed no fixed patterns of behavior, whose one controlling law was chance.

Nothing, apparently, was duplicated. The very stones and minerals were anomalous. What further irregularities they would encounter Morris and Markitey could not guess. In a world subject to chance everything simplest natural laws would be wholly crratic and independable. A horror of this law-less world gradually arose in them.

So far, they had met no form of animal life. Now, as they neared the forest, a creature that was like a poddy and spider-legged serpent came down as if from the heavens on one of the preposterously tall boles, running swiftly. The men stepped toward the tree, trying to decide which end of this curious creature was the head and which the tail. Like a mirage the forest faded away with

their change of position. They saw its fantastic tops at a seeming distance of many hundred yards, in an oblique direction. Turning, they found that the whole valley, during their brief journey, had shifted about and

ing, they found that the whole valley, during their brief journey, had shifted about and had recomposed itself beyond all recognition. They were unable to locate the rocket plane for some moments—but finally, in an opposite quarter and seemingly much further

away than they had supposed, they discerned the gleam of its wings and hull. Before them, in lieu of the forest, was an open space in which the vari-colored stream had mysteriously reappeared. Beyond the

had mysteriously reappeared. Beyond the stream arose plots of scattered vegetation, backed by opalescent cliffs. "The late Professor Einstein would have been interested in this," remarked Morris.

"Even the light must be moving at random, and sight images are traveling in zig-zags and circles. Nothing is where it ought to be. We've gotten into a labyrinth of mirages."

We've gotten into a labyrinth of mirages."
"We'll be lucky if we ever find our way
back to the old boat," snorted Markley.
"Want to look any further for our Japanese
friends?"

Morris did not answer at once. His eye far-off plots of vegetation beyond the stream. He pointed it out to his companion silently. Three dark, moving specks, doubtless the figures of men, appeared beside the glint as they watched.

"There they sre," said Morris. "Looks as if they were starting for a pascar themselves e or were just returning from one. Shall we

or were just returning from one. Shall we try to interview them?"
"You're the captain, old scout. I'm game

if you are. Lead on MacDuft."

Temporarily forgetting the highly illusive refraction of the weird scenery, they started toward the stream, which appeared to be only a few paces away and which they could eastly, cross at a step if the light gravity prevailed in its neighborhood.

prevailed in its neighborhood.

By another astonishing shift the stream moved away from them, reappearing in a different quarter at a considerable distance—and the gleam of the Japanese rocket plane and its attendant human specks had vanished from yiew.

"I giess we'll play tag with some more mirages," opined Markley in a disgusted tone. "Even if guns will shoot in this crazy world, there's small likelihood that we could hit anyone or that anyone could hit us."

More deeply bewildered than ever, they pressed forward, trying to relocate the enemy vessel. The changing zones of gravity made their progress egratic and uncertain. The landscape melted and shifted around them like the imagery of a kalcidoscope.

A clump of crowded vegetation, rearing its anomalous boles and monstrous leafage as if from nowhere, leaned into place before them. Rounding the clump, which seemed relatively stable, they came suddenly in sight of the Japanese, who, in air-suits and helmets, were now standing on the opposite brink of the apparently nearby water.

HETHER or not Sakamoto and his fel-lows had seen the Americans was uncertain. They were staring in the direction of Morris and Markley, who did not wait for decisive proof that the enemy had perceived them, but drew their automatics and aimed ouickly, each choosing one of the two nearest

figures. Somewhat to their surprise in view of the various baffling and topsy-turvy phenomena they had encountered, the pressure of the triggers was followed by a sharp double report. The Japanese, however, did not seem to realize that they were being fired at. Their apparent nearness and relative position were

no doubt illusory. Markley and Morris, recognizing this probability did not shoot again, but sprang forward in an effort to approach the deceptive figures. The Japanese vanished. The whole valley seemed to swirl in a semi-circle and rearrange itself. The two Americans found themselves at the foot of that barren slope from which, in their first remote view of the place, a second stream had appeared to descend and join the meandering creek. -

From their new and close vantage, however, there was only one stream, which, flowing down the valley-bottom against the barring slope, ran turbulently uphill in a series

of skyward-leaping rapids and cascades! Too astonished even for profanity, they stared without comment at this unique reversal of what they were accustomed to regard as natural law. For a considerable distance on either side of the stream the acclivity was hollowed and worn smooth as if by landslides or a process of slow attrition.

Occasionally, as the men stood watching it, a pebble, a lump of conglomerate soil, or a few particles of grit were loosened from the ground, to roll heavenward rapidly and disappear beyond the ragged crest of the slide together with the cascading waters.

Drawn by thoughtless curiosity and wonder, Morris stepped toward the beginning of the slope, which was perhaps ten feet away. It was like stepping over a precipice. The ground seemed to tilt beneath him, and the slope fell like an overturning world, till it pitched downward at a steep angle with the

sky at its bottom.

Unable to arrest his strange fall, he slid sidelong into the rushing water and was carried roughly and dizzily down the rapids and over the cascades. Half-dazed and breathless, he felt that he was shooting across the world's rim toward a nether gulf in which hung the fallen sun,

Markley, seeing his companion's weird fate. also started toward the acclivity with some dim instinctive idea of rescuing Morris from the inverted stream. A single step, and he too was seized by the skyward gravitation. Slipping, rolling and bumping as if in a steep chute, unable to regain his foothold, he slid along the topsy-turvy slope, followed by a shower of detritus, but without falling into

the water. He and Morris, passing the rim of the slide as if hurled toward the reddish-brown sky that was now beneath them, each experienced another bewildering bouleversement. Morris found himself floundering in a sort of hilltop pool, where the final cascade foamed itself into quiescence. Markley, stunned and sprawling, but with unbroken bones, was lving on a pile of rubble such as would ordinarily gather at the bottom of an escaroment. Morris scrambled from the pool, which was only waist-deep, and helped Markley to his feet. The local gravity was almost normal from a terrene viewpoint. Plainly all objects that were drawn skyward along the deficiently attractive area were promptly arrested when they reached the top. Headlong and turbulent, the cascade curved over the rim into the level pool.

The earth-men, finding themselves quite unburt, proceeded to examine their airsuits and belimets for possible damage. Since the local atmopshere was untested, and might well possess deleterious properties, a rift in the leatheroid fabric would perhaps be a serious matter. The suits, however, were intact, and the tubes that supplied oxygen from flat tanks behind the shoulders were in perfect condition

The height that they had climbed in so singular a fashion was really part of an uneven plateau that appeared to surround the whole valley. The plateau was divided by long hummocks of mottled soil and stone which rose gradually into bleak uplands and low mountains at a seeming distance of

several miles. From their present vantage point, the valley below was an immense sink. They saw the entire course of the tortuous stream, the areas of outré vegetation, and the gleaming of some metallic object which they assumed to be their own rocket plane. Japanese plane was not visible, and was

perhaps hidden by one of the plots of fores-

Of course, remembering the optical dis-

tortion and displacement which they had encountered so often in their wanderings, they could not be sure of the actual distance, perspective and relationship of the various elements in this bizarre scenery.

TURNING again from the valley, they considered the plateau itself. Here the stream, running in a normal and tranquil fashion, entered a ravine and disappeared. The whole landscape was intolerably dreary and repellent, with the same chaotic mineral formation as the valley, but without even the valley's anomalous plant-life to relieve its deadly desolation.

The lopsided sun, declining very swiftly or else subject to the nearly universal optic transposition, had already fallen halfway from its zenith toward the horizon of amorphous mountains in what the men estimated to be less than an hour. The clouds had all melted away, but far off, above the valley, they could still discern the mysterious serial

blurred spot. I guess we'd better mosey back toward the boat," said Markley, after viewing the barren scene with obvious horror. "But we won't try to go the way we came. If we follow the rim of the valley, we ought to find a place where the gravitation won't

drag us the wrong way. Made doubly cautious by their disconcerting experiences, they started along the verge of the sink. For some distance, the ground was littered with detritus, and even with loose boulders that had rolled upward to be arrested at the top. When they came to the end of this rubble, they surmised that they were beyond the belt of reverse gravitation. Following the rim toward a point where the slope became more gradual, they came suddenly into a zone of heavier gravity than any they had yet entered. At one step their weight appeared to treble. A crushing burden descended upon them, and they could lift

their feet only with immense effort. Struggling against the uncanny pull of the strange earth and on the verge of panic they heard an indescribable clattering and rustling behind them, and turned their heads labori-

ously to ascertain the cause. Emerging as if from empty air, a concourse of unimaginably monstrous beings had gathered at their very heels on the bleak verge of the plateau. There were scores of hundreds of these entities, who, whether mere beasts or the analogues of humanity, were no less various and freakish in their conformation than the weird flora of the

Obviously there was no common norm or type of development as in terrestrial species. Some of the entities were no less than twelve or thirteen feet tall. Others were squat

valley-bottom.

pygmies. Limbs, bodies and sense-organs were equally diversified and equally of nightmare quality.

One creature was like a prodigious moonfish mounted on stilts. Another was a legless, rolling globe fringed about the equator with prehensile ropes that served to haul it along by attaching themselves to projections. Still another resembled a wingless bird with a great falcon beak and a tapering serpentine body with lizard legs, that glided half-erect.

Some of the creatures possessed double or triple bodies. And some were hydra-headed or equipped with an excessive number of limbs, eyes, mouths, ears and other anatomi-Truly these beings were the spawn of

cal features

chance, the random creations of a lawless biological force. A horde of fabulous, fantastic, nightmare improbabilities, they surged forward upon Morris and Markley, uttering a babel of wordless sounds, of cacklings, hisses, clucks, ululations, roarings and bellowings. Whether they were hostile or merely curious the men could not decide. Both were petrified with a horror beyond the horror of evil dreams. Not one of the creatures emittéd a comprehensible sound

The leaden gravitational drag, rendering the least movement slow and toilsome, reenforced their sensation of nightmare, Laboriously they drew their pistols and, half-lifting them at the oncoming rout, pulled the triggers. The reports were dull and muffled The bullets flew with visible slowness and rebounded harmlessly like tossed pebbles from the monsters that they struck. But their slow-motion qualities were not matched by the monsters at which they aimed.

Like a stampeding herd, the throng of biologic horrors was upon Morris and Markley. Battling against the gravity as well as against the loathsome bodies and members that engulfed them, they were borne irresistably along by the seething mass. Their pistols were torn from their hands, leaving them unarmed and helpless.

They saw hideous faces and faceless things that milled about them like a torrent of the damned in some nether circle. Occasionally in broken glimpses, they saw a disordered landscape of amorphous rock with pools and streams of fine sand and sudden, fortuitous vegetation like mad mirages, through which they were being carried

The origin of the monsters, their purpose their destination, their intentions in regard to the earthmen, were enigmatic as the riddles of delirium. Resistance was futile. Morris and Markley gave themselves up to the rushing motion of the throng in the hope that some opportunity of escape would ultimately offer itself.

CHAPTER III

#### The Masters of Chance



THEY seemed to go on for hours. The gravitation still varied, but was often constant over large areas. The sun, instead of sinking further, rose again to the zonith. Sometimes there were brief intervals of darkness, as if the light had been shut off by some queer fluctuation of atmospheric properties.

mospheric properties.

Puffs of wild wind arose and died. Rocks and whole hummocks seemed to crumble abruptly on the waste. But through all this chaos of conditions, the monstrous horde poured onward with its captives.

Apparently the earthmen had fallen in with a whole tribe of these anomalous creatures, who were perhaps migrating from one zone of their random world to another. At least, such was the explanation that suggested itself in lieu of positive knowledge.

Markley and Morris became aware that the

ground was slanting downward. Over the heads of the monsters, they saw that they had entered a flat, sloping valley. Rough mountains, perhaps the same that they had seen from the rim of the sink, appeared to loom at no great distance above them.

The low valley debouched in a shallow, The low valley debouched in a shallow, createrisk hollowed with the barde suddenly createrisk hollowed with the shallowed countries of the out in a curious manner. Markley and holoris, now able to work their way forward, saw that the creatures had arranged themselves in a ring about the slopes of the cirrular bollow. Leaving a clear space at its

bottom.

In the center of the vacant space a singular phenomenon was manifesting itself. A fountain of fine, hueless powder rose from the stone and soil, attaining a height of three feet. Slowly it widened and rose higher, prescrying the form of a round eclure.

preserving the form of a round column.

Its top mushroomed into a vague cloud,
spreading above the heads of the assembled
throng and floating skyward. It was as if
some process of molecular dissolution were

taking place to create this formation.

Markley and Morris were fascinated by the spectacle. Before them, the stlent, circular crumbling of the ground went on. The column swelled to Titanic proportions, towering above the crater. Seemingly the monstror too were fascinated, for none of them stirred to break the ring-like formation.

to break the ring-like formation.

Then, gradually, as the column of atoms increased, the horde began to surge forward.

The ring narrowed till its immost ranks were driven, elose-packed, into the fountain by the pressure from behind. Visibly, as the creatures entered it, their limbs and bodies melted like bursting puff-balls, to swell the columnar cloud of dissolution that mounted Sayward. Say and the community ship is the say of the community ship in the community ship is the say of the community ship in the community ship is the say of the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community ship in the community ship is the community ship in the community sh

"Are they all going to commit suckide and take us with them?" Markinely's voice was a horror-fauttened whisper. He and Morris, caught in the forward ranks, were being forced slowly toward the fountain. Only two rows of the monsters now intervened, and even as Markley spoke, the bodies of the inmost row began to dissolve in the column.

The earthmen struggled desperately against the massed bodies that crowded from behind. But the living wall, close and implacable, as if bent on nothing but self-immolation, drove

downward inch by inch.

Overhead, the sun was blinded by the mushrooming column. The sky took on a madder-brown twilight. Then, with a suddenness as of some atmospheric legerdemain, the twilight blackened into Cimmerian dark-

ness.

A mad, elemental howling tore the air, a blind hurricane filled the crater, blowing as if from above. Bolts of lightning leapt upward from the ground, enshrouding with blue and violet fire the horrible horde of biologic anomalies.

The pressure behind the earthmen relaxed. A pain's seemed to have seized the monsters, who were now dispersing in the bolt-riven darkness. The earthmen, fighting their way upward, stumbled over the half-charred bodies of those who had been slain by the lightning.

By intermittent flashes, they saw on looking back that the column of atomic dissolution still poured from the crater's bottom to merge with the seething storm that had risen as if at random from nowhere.

Miraculously unbouched by the lightning, Morris and Maridely found themselves in the flat valley through which they had entered the crater. Most of the monsters had now disappeared, melting away like the shadows of a nightmare. The last flashes revealed little but vacant soil and rock.

The lightning ceased, leaving the men in darkness. An irresistable wind, like a tor-nent of rushing water, bore them along through the Stygian night and they lost all trace of each other. Often hurled headlong, or lifted bedily from the ground at the mercy of lawless, anarchic alements, they were

blown apart like lost leaves.

Abruptly as it had begun, the tumult fell in a great stillness. The darkness dissolved from the heavens. Morris, lying dazed and breathless, found himself alone amid barren reaches of rock and sand.

He could trace nothing familiar in the landscape. The mountains were lost to view, and he saw no sign of the fountain of molecules. It was as if he had ben transported to another tract of this fantastic realm of chance.

. Halloing loudly, but answered only by sardonic echees, he started off at random in an effort to find Markley. Once or twice, amid the shifting, Illusive imageries through which he wandered, he thought that he saw the mountains which had loomed beyond the crater of dissolution.

THE sun, changing its apparent position by leaps and bounds, was now close to the horizon and its rays were indescribably dark and eerie. Mourts, plodding dogsedly on amid the delusive advances and recessions of the dreasy landscape, come without warnlands of the description of the description of the second of the description of the description of the Before him the lost mountains reappeared as it by magic. Going on, he emerged in the

crater-like hollow.

Many of the charred monsters, slain by the electric storm were strewn about the slopes. But the fountain itself was no longer active. A round, funnel-like pit, twenty feet in diameter, yawned dark and silent at the bot-

tom of the hollow.

Morris felt the descent of an overmastering despair. Lost as he was in this awful transdimensional limbo, and separated from his comrade, whose fate he could not imagine, the prospect was indeed dreary and hopeles. His whole body ached with accumulated fatisue: his mouth and throat were after was

corrosive thirst.

Though the oxygen still poured freely from its tank, he could not tell how much of his supply remained. A few hours, at most, and then his ordeals might end in asphyxiation. Momentarily crushed by the horror of it all.

he sat down on the crater slope in the rustybrown gloom.

Curiously, the twilight did not darken. As if in a reversed ecliptic, the sun returned slowly into the heavens. But Morris in his despair, hardly heeded this outr's thenome-

non.

Staring dully at the re-illumined ground, he saw the appearance of several grotesque, anomalous shadows that fell past him on the slope. Startled from his lethargy, he sprang up. A dozen or more of the monstrous people had returned. Some of them were gawing the cinderly bodies of their companions.

But three, as if disclaiming such fare, were closing in upon Morris.

Even as he turned, they assailed him.

One of them, a headless thing with ropy arms and a puckered, mouth-like orifice in the center of its gourd-shaped body, tried to drag him down with its frightfully clon-

gated members.

Another, which might have been some heraldic griffin minus wings and feathers, began to peck at his air-suit with its tremendous horny beak. The third, which was more like a horribly overgrown toad than

anything else, hopped about him on the ground and mumbled his ankles with its toothless mouth. Sick with nausea, Marris struggled against them. Time and again he kicked away the tood-like creature, which returned with noisome pertinacity. He could not loosen the ropy members of the headless harron.

which had wrapped themselves about him in

plastic folds. But his worst fear was that the griffin would tear open his leatheroid garments with its alking beak. He harmered the huge bird-shaped body with his fasts, driving it away repeatedly. But as if mad with rage or hunger, it reassaided him. This legs and blows of the cruel beak.

Beyond his attackers he caught involuntary gimpses of the horrid feast that was being enjoyed by their fellows. It was like the feeding of harpies in some infernal circle, and Morris could surmise his own imminent fate all too clearly. He saw that several of the feeders, quitting their half-eaten provender, were turning in his direction as if

Instinctively, as he fought on, he heard the sound of a measured drumming from above. The sound drew nearer and ceased, In a turn of the dying combat, he saw that

ioin the three assailants

two gigantic beings had arrived among the monsters, and were standing a little apart, as if watching the gruesome orgy with detached

Even amid the frightful preoccupation of his struggles he noticed a strange thing. The new arrivals, alone of all the life-forms that he and Markley had met in this erratic world, seemed to approximate a common type of physical development.

Both of them stood erect, and their conformation was vaguely human in its outlines, except for the enormous wings, ribbed and leathery as those of ancient pterodactyls, which hung half-folded at their backs. Their coloration was a dark, bituminous brown, verying upon ebon blackness in the wings, and the statement of the statement of the coloration was accessed.

They were massively built with a stature of eleven or twelve feet and aquilline, sloping, experience, and the status of the state of th

but their aspect was not malign and was wholly poised, aloof and dispassionate.

Such were the impressions that be received, without conscious assortment or definition at the time. Without interlude, the interpolation of the properties of the gitimude. Presently, however, one of the gigantic winged beings moved with prodigious strides toward the earthman and his attackers as if to watch the uneven combattures of the properties of the properties of the Morris field, the regard of the great yellow peared to search him through and read the inmost secrets of his mind.

#### CHAPTER IV

#### Atomic Dust



THE being stepped closer, lifting an enormous hand in a leisurely but imperious gesture. As if fearful or cognizant of a superior power, the loath some assailants abandoned their efforts to drag Morris down, and slunk away to assuage their hunger on an unpreempted bit of carrion

that lay beside the pit in

the crater's bottom.

A dreadful faintness surged upon the earthman—a reaction from all the intolerable horrors and fatigues of the day. Amid the whirling darkness into which he slid, he saw the gleaning of two mesmeric goldern eyes, and felt the firm grasp of glant hands that seemed to sunnor t and lift him.

An electric shock ran through him at their touch. Miraculously his faintness cleared away, leaving him wonderfully alert. Strength seemed to flow into him from the mightly hands—magnetic strength, hooyant and preferbuman. The horor faded from and preventions. The horor faded from and bewildered, but was filled with a mystic confidence.

The experience that be next underwent was perhaps the strangest of all that befell him in the dimension of chance. Also, it was the hardest to remember or describe.

Beneath the thrilling touch of the winged being whose hands held him firmly by the shoulders, he seemed almost to pass beyond his own consciousness. Thoughts that were not his own rose up and limned themselves with the clearness of actual visions of objective impressions.

In some ineffable way, be shared for a moment the thoughts and memories of the being who had rescued him from the monsters. Whether or not an intentional telepathy was being exerted, he never quite knew. But alien vistas, beheld through unfamiliar senses, appeared to open before him.

The two winged beings, he knew, were members of a race that was far from numerous. They were the rulers of this out-landish word, the self-made masters of its incalculable forces and disorganized elements. Their evolution had been supermely difficult they had risen from a state that was little higher than that of the unhappy monstrate.

They had developed faculties that enabled them to circumvent the lawlessness of their environment, to forecast its very randomness, to impose law and order on the everchanging chaos. They had even learned to control their own development.

The nightmare hollow in which Morris
stood had temporarily vanished. There came
to him the sense of tremendous flight above
strange horizons. He seemed to pass on lofty
wings over wastes of choatically piled and
tumbled rocks with the being whom he knew
as one of the Masters of Chance.

Amid the shifting mirages of desolation, hrough distorting zones of air, above realms that pitched obliquely for immeasurable leagues, like the flattened side of some malformed planet, he flew unerringly to his destination.

Beyond the chaos, on tiered mountains that rose stupendously high, he beheld the high

and many-terraced citadels of the Masters. As if he had trodden their hattlements, he knew the white walls of a majestically ordered architecture that defiel the cratic formlessness of the world beneath and imposed its harmonic sternness on the tumbled waste. He knew the terraces, lined with geometric rows of trees and flowers, in which, by some miracele of horticultural mastery, the random flors had been subdued and had taken on

the characters of type and species.

Dimly, to the limit of his human thoughtcapacity, he understood something of the
Masters. Their powers were those of dynamic
will, of magnetism and sense-development—
and they did not depend entirely on mere
nhysical science or machinery.

In former ages they had been more numerous, had ruled a larger area of that unstable, incalculably treacherous world. It seemed that the apex of their evolution had passed, that though they still were powerful, they were menaced more and more by the beleasureins forces of cosmic anarchis.

Such were the things that Morris learned in that moment of communion with his rescuer. Returning to his own proper consciousness, he felt also that the telepathic interchange had been mutual: the being had read his own history, his predicament of hopeless alienation in a strange world—and in some

inscrutably benign way, was minded to help the crumbling cliffs engulfed it even as he watched

He felt no surprise, whatever, at the more outré happenings that ensued. Somehow, as if he shared the ability of his protector to read the future, all that occurred was familiar as a twice-told tale. In this bizarre but foreknown drama, the winged being lifted him gently but firmly, making a cradle of its vast arms, and spreading its ebon wings, mounted swiftly toward the misshapen sun.

Its companion followed, and Morris knew, as they flew steadily above the changing zones of gravitation, above the dreary jumble

of the wandering mirages, that they were

seeking Markley. In a dim, partial way he seemed to share the clairvovance of the Masters, which enabled them to distinguish the real from the illusory amid the disordered refraction of their atmosphere. He, too, was gifted with a televisual faculty by which he could scan the remote or hidden portions of the waste.

SURE and undeviating, the mighty leathern wings best onward toward their goal. Amid the kaleidoscopes of desolation there appeared the rough rim of the valley in which Morris and Markley had left their rocket plane.

Swifter grew the beating of the wings, louder was their drumming, as if haste were needed. A strange anxiety mounted in Morris lest they should be too late.

Now they hovered above the valley, slanting groundward. The place had changed in some fashion that Morris could not define to himself at a moment. Then he realized that certain of the ringing bluffs and slopes had crumbled away, were still crumbling, to form a moving sea of hueless sand.

In places, columns of atomic powder mounted like geysers; some of the area of forestation had fallen into shapeless heaps of dust, like disintegrated fungi. These sudden, erratic, localized decompositions of matter were common phenomena of the world of chance. It came to Morris, as part of his mystic knowledge, that the order which the Masters had wrested from chaos was not wholly secure against their inroads.

Anxiously, with a breathless fear, he scanned the area into which the mighty being who carried him was descending on sloped wings. Markley was somewhere in that area. He had wandered back there in a blind, bewildered search for his lost companion, and danger-a double danger-

As if with the keen, straight-seeing eyes of the Master Morris discerned a rocket plane on the valley floor and knew it to be the one the Japanese had used. Seemingly it was deserted and the moving tide of sand from

threatened him now.

In the middle of the valley, he described the glittering of another plane-the one that belonged to Markley. Four tiny figures were milling to and fro beside it in wild combat. Upon them, unheeded, the deluge of dis-

solution was advancing swiftly. The sands rolled in crested hillows

. The trees swelled and soared to monstrous arboreal phantoms and dissolved in pulverous clouds. Pillars of freed molecules built themselves up from the valley-bottom and

were shaped into ominous, floating domes that obscured the sun. It was a scene of elemental terror and silent tumult. Across it, sloping and dipping, the

wings of the Masters drummed, till they hovered above the knot of struggling figures. Three men in helmets and air-suits were attacking a fourth, who was similarly attired, The weakness of the local gravity, however, made the compat less unequal than it might have seemed. Also, it served to lighten the

blows which the contestants succeeded in delivering. Markley, in great, twenty-foot leans, was eluding the Japanese much of the time: but plainly he was tiring; and the three would corner him soon. Several automatic pistols. discarded as if empty or useless, were lying on the ground: but one of the Japanese had drawn an ugly, curved knife and was watch-

ing his chance for a thrust at the darting figure of Markley.

In their desperate struggle none of the four had perceived the arrival of the Masters. It was Markley who saw them first. As if stupefied, he paused in one of his rushes, and stared at Morris and the winged beings.

Two of the Japanese turned and also beheld the hovering figures. They stood petrified with astonishment or terror. But the third, intent on delivering a thrust with his wicked knife, had not seen them; and he flew in a long and vicious aerial leap at . Markley.

The second Master, hanging in air beside Morris' protector, raised his right hand and pointed at the flying Japanese. For an instant, his fingers seemed to clutch and hurl a great javelin of living fire. The javelin leapt and faded—and the Japanese. a shapeless pile of fuming cinders, lay at Markley's feet.

The other two, shielding their goggled eyes with their hands, as if the terrible lance of light had blinded them, rushed toward the oncoming storm of atomic disintegration. Before them, on the valley floor, a sudden pillar of dust ascended, swelling awfully as it ate the conglomerate soil. It seemed to topple upon them and then, suddenly, they were gone.

MORRIS, watching in wordless awe, felt that the lifting arms had been withdrawn, that his feet had been set on the ground. Close above him, the two Masters towered, with spread wings. As if an urgent voice had spoken aboud, he knew the things that must be done without delay.

"Come—we can start the plane!" he cried to Markley. "We've got to move in a great hurry." Markley, who had been staring at the

Markley, who had been staring at the Masters, appeared to emerge from a sort of trance.

"All right, if you say so—and if the fuel will explode," he agreed. "But before we go, I'd like to thank your winged friend for browning Sakamoto. I don't know how it was done; but he sure has a wicked jolt. That Jap would have laid me open like a

dead fish in another split-second."

A sudden, howling, wind blew down the valley, spreading the dust-billows like a blown spray, lifting the atomic columns into a roof of doom. Swiftly the storm of dissolution gathered, rushing toward the plane.

Samulation of the control of the con

seething valley.

Looking back through one of the ports,
Morris perceived the two flying colossi, who
hung aloof in the heavens as if watching the
departure of the plane. Serene, impassive,
on poised wings, they floated beyond the

atomic storm, which had already begun to subside. He turned away with a strange awe, a

reverential gratitude. Beneath Markley's skilful guidance, the plane was heading straight for the formless atmospheric blur that still blotted the reddish-brown sky. Again Morris looked back. High, far and tiny, between the malformed sun and the chaotically strewn and riven world, the

tiny, between the malformed ans and the chaotically strewn and riven world, the mysterious beings whom he knew as the Masters of Chance flew steadily on level wings toward their remote city. It was his last sight of them, and stready the mystic knowledge that had been imparted to him was fading a little in his brain.

The telepathic vision of the citades that imposed their severe architectural ordination on a mad terrain—the supernal, hardwon power of the Masters, battling perpetually against iswless elements and the teacherous, intractable forces of a cosmic venderal control of the contro

Now the blind aerial blur had enveloped the vessel. Greyness, clinging and all-pervasive, filled it like an atmosphere of cottonwool. Sight, sound—even feeling and thought —were lost as if in some hinterland of oblivion.

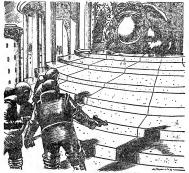
Out of the blur, as if from a formless, hucaseless, dream of death between two lives, the plane and its occupants floated into the dark azure of the terrene stratosphere. Sight, consciousness, feeling, memory, runned in a sudden flood to Morris and Markley. Below the subject of the subject of the subject of the subject of the familiar reaches of Newde, edged with white and saw-like mountains.



NEXT ISSUE'S HALL OF FAME CLASSIC

#### THE MAN WITH X-RAY EYES

The Astounding Story of David Winn, Whose Vision Was Too Clear!
By EDMOND HAMILTON



That never came from any part of our own galaxy?" Drill cried

## THE DEAD PLANET

#### By EDMOND HAMILTON

Star travelers from a distant galaxy crash on a lost world to confront horror and wonder—and a shocking surprise!

BIDDNT look like such a forhidding little world at first. It looked dark, it or had been and lifeless, but there was no hint of what brooded there. The only question in our minds then was whether we would die when our cripied ship crashed on it. Tharn was at the controls. All three of us had put on our pressure suits in the hope that they might save us if the crash was bad. In the massive metal suits we looked

T DIDN'T look like such a forbidding like three queer, fat robots, like three metal little world at first. It looked dark, loy globes with jointed mechanical arms and

legs.
"If it hadn't happened here!" came Dril's
hopeless voice through the inter-com "Here
in the most desolate and unknown part of
the whole galaxy!"

"We're lucky we were within reaching distance of a star system when the generators let go, I murmured.

"Lucky, Oroc?" repeated Dril butterly, "Lucky, to postpone our end by a few days of agony? It's all we can look forward to on that.

The system ahead did look discouraging for wrecked star explorers. Here in a thin region at the very edge of the galaxy, it centered around a sun that was somber dark red, ancient, dying

Six worlds circled that smoldering star. We were dropping toward the innermost of the six planets, as the most possibly habitable. But now, we could clearly see that life could not exist on it. It was an airless sphere, sheathed in eternal snow and icc. The other five planets were even more hopeless. And we could not change course now, anyway. It was a question of whether the two strained generators that still functioned would be able to furnish enough power to slow down our landing speed and

save us from total destruction Death was close, and we knew it, yet we remained unshaken. Not that we were heroes. But we belonged to the Star Service. and while the Star Service yields glory, its members always have the shadow of death over them and so grow accustomed to it.

Many in the Star Service had died in the vast, endless task of mapping the galaxy. Of the little exploring ships that went out like ours to chart the farther reaches of stars, only two-thirds or less ever came back. Accidents accounted for the rest-accidents like the blowing of our generators from overload in attempting to claw our way quickly out of a mass of interstellar debris

Tharn's voice came to us calmly. We'll soon hit it. I'll try to crabtail in, but the chances are poor. Better strap in. Using the metal arms of our suits clumsi-

ly, we hooked into the resilient harnesses that might give us a chance of survival. Dril peered at the largening white globe helow

"There look to be deep snows at places. It would be a little softer there." "Yes," Tharn replied quietly. "But our

ship would remain buried in the snow. On the ice, even if wrecked it could be seen. When another ship comes, they'll find us, and our charts won't be lost." Well, for a moment that made me so proud

of the Star Service that I was almost contemptuous of the danger rushing upon us. It is that wonderful spirit that has made the Service what it is, that has enabled our race to push out from our little world to the farthest parts of the galaxy. Individual explorers might die, but the Service's conquest of the universe would go on

"Here we go," muttered Dril, still peer-

ing downward The icy white face of the desolate world

was rushing up at us with nightmare speed. waited tensely for Tharn to act. He delayed until the last moment. Then he moved the power bar, and the two remaining generators came on with a roar of

power. They could not stand that overload for more than a few moments before they too blew out. But it was enough for Tharn to swing the falling ship around and use the blast of propulsive vibrations as a brake. Making a crabtail landing is more a matter of luck than skill. The mind isn't capable of estimating the infinitesimal differences that mean disaster or survival. Use a shade too much power, and you're bounced away from your goal. A shade too little, and you

smash to bits. Tharn was lucky. Or maybe it wasn't luck as much as pilot's instinct. Anyway, it was all over in a moment. The ship fell. the generators screamed, there was a bump-

ing crash, then silence. The ship lay on its side on the ice. Its stern had crumpled and split open at one place, and its air had puffed out, though in our suits we didn't mind that. Also the last two generators had blown out, as expected, from the overload in cushioning our fall. "We made it!" Dril bounded from despair

to hope. "I never thought we had a real chance. Tharn, you're the ace of all pilots." But Tharn himself seemed to suffer reaction from tension. He unstrapped like ourselves and stood, a bulky figure in his globular suit, looking out through the quartz portholes

"We've saved our necks for the time being," he muttered, "But we're in a bad

The truth of that sank in as we looked out with him. This little planet out on the edge of the galaxy was one of the most desolate I had ever seen. There was nothing but ice and darkness and cold.

HE ice stretched in all directions a rolling white plain. There was no air-the deep snows we had seen were frozen air, no doubt. Over the gelid plain brooded a dark sky, two-thirds of which was black emptiness. Across the lower third glittered the great drift of the galaxy stars, of which this system was a borderland outpost. "Our generators are shot, and we haven't

enough powerloy to wind new coils for all of them," Tharn pointed out. "We can't call a tenth the distance home with our little communicator. And our air will eventually run out.

"Our only chance," he continued decisively, "is to find on this planet enough tantalum and terbium and the other metals we need, to make powerlov and wind new coils. Dril. get out the radio sonde." of sparks and flame. He quickly cut the

The radio sonde was the instrument used in our star mapping to explore the metallic resources of unknown planets. It worked by projecting broad beams of vibrations that could be tuned to reflect from any desired

elements, the ingenious device detecting and computing position thus. Dril got out the compact instrument and tuned its frequencies to the half dozen rare metals we needed. Then we waited while he

swung the projector tubes along their quadrants, closely watching the indicators. "This is incredible luck!" he exclaimed finally. "The sonde shows terbium, tantalum and the other metals we need all together in appreciable quantities. They're just under

the ice and not far from here!"
"It's almost too good to be true," I said
wonderingly. "Those metals are never found

all together."
Tharn planned quickly.

"We'll fit a rough sledge and on it we can haul an auxiliary power unit and the big dis-beam, to cut through the ice. We'll also have to take cables and tackle for a hoist." We soon had everything ready and started across the ice, hauling our improvised sledge and its heavy load of equipment.

The frozen world, brooding beneath the sky that looked out into the emptiness of extra-galactic space, was oppressive. We had hit queer worlds before, but this was the most gloomy I had ever encountered.

The drift of stars that was our galaxy sank behind the horizon as we went on, and it grew even darker. Our krypton lamps cut a white path through the somber gloom as we stumbled on, the metal feet of our heavy suits slipping frequently on the ice. Dril stopped frequently to make further checks with the radio sonds. Finally, after

several hours of toilsome progress, he looked up from the instrument and made a quick signal, "This is the position," he declared. "There should be deposits of the metals we need

only a hundred feet or so beneath us."

It didn't look encouraging. We were standing on the crest of a low hill of the ice, and it was not the sort of topography where

it was not the sort of topography where you would expect to find a deposit of those metals.

But we did not argue with Dril's findings.

But we do not argue with Dris innings. We hauled the auxiliary power unit off the sledge, got its little ato-turbine going, and hooked its leads to the big dis-beam projector which we had dismounted from the bows of our ship.

Tharn played the dis-beam on the ice with expert skill. Rapidly it cut a ten-foot shaft down through the solid ice. It went down for a hundred feet like a knife through cheese and then there was a sudden backlash of sparks and flame. He quickly cut the power. "That must be the metal-bearing rock

we just hit," he said. Dril's voice was puzzled.

"It should be seventy or eighty feet lower to the metal deposits, by the sonde readings."

"We'll go down and see," Tharn declared.

"Help me set up the winch."

We had brought heavy girders and soon

had them forming a massive tripod over the shaft. Strong cables ran through pulleys suspended from that tripod and were fastened to a big metal bucket in which we could descend by paying out cable through the tackle.

Only two of us should have gone down, really. But somehow, none of us wanted to wait alone up on the dark ice, nor did any of us want to go down alone into the shaft. So we all three crowded into the big bucket. "Acting like children instead of vertical star explorers," grunted Tharn. "I shall make a note for our psychos on the unsetting efforts."

of conditions on these worlds at the galaxy edge."

"Did vou bring your beam guns?" Dril

asked suddenly.

We had, all of us. Yet we didn't know quite why. Some obscure apprehension had made us arm ourselves when there was no

conceivable need of it.
"Let's go," said Tharn. "Hang onto the
cable and help me pay it out, Oroc."
I did as he bade, and we started drop-

ping smoothly down into the shaft in the ice. The only light was the krypton whose rays Dril directed downward. We went down a hundred feet, and then

we all cried out. For we saw now the nature of the resistance which the dis-beam had met. Here under the ice there was a thick stratum of transparent metal, and the disbeam had had to burn its way through that.

UNDERNEATH the burned-out hole in that metal stratum there was—nothing. Just empty space, a great hollow of some kind here beneath the ice.

Tharn's voice throbbed with excitement. "I'd already begun to suspect it. Look

down there!"
The krypton beam, angling downward into
the emptiness below us, revealed a spectacle

which stunned us.

Here, beneath the ice, was a city. It was a great metropolis of white cement structures, dimly revealed by our little light. And this whole city was shielded by an immense dome of transparent metal which withstood the weight of the ice that ages had niled

upon it.
"Our dis-beam cut down through the ice

and then through the dome itself," Tharn was saying excitedly. "This dead city may have been lying hidden here for ages." Dead city? Yes, it was dead. We could

Dead city? Yes, it was dead. We could see no trace of movement in the dim streets as we dropped toward it. The white avenues, the vague facades and

galleries and spires of the metropolis, were silent and empty. There was no air here. There could be no inhabitants. Our bucket bumped down onto the street.

We fastened the cables and climbed out, stood staring numbly about us. Then we uttered simultaneous cries of astonishment.

An incredible thing was happening. Light was beginning to grow around us. Like the first rosy flush of dawn it came at first, burgeoning into a soft glow that bathed all

the farflung city.
"This place can't be dead!" exclaimed Dril.
"That light..."

"Automatic trips could start the light going," said Tharn. "These people had a great science, great enough for that."

"I don't like it," Dril murmured. "I feel that the place is haunted." I had that feeling, too. I am not ordinarily sensitive to alien influences. If you are, you

don't get accepted by the Star Service.

But a dark, oppressive premonition such
as I had never felt before now weighed upon
my spirits. Deep in my consciousness stirred
vague awareness of horror brooding in this

vague awareness of horror brooding in this silent city beneath the ice. "We came here for metal, and we're going to get it," Tharn said determinedly. "The

bight won't hurt us, it will help us."

Dril set up the radio sonde and took bearings again. They showed strongest indications of the presence of the metals we needed at a noint some halfway across the city from

There was a towering building there, an enormous pile whose spire almost touched the dome. We took it as our goal and started. The metal soles of our pressure suits clanked on the smooth cement paving as we walked. We must have made a strange pictramping through that early liluminated metrookly of silence and death.

"This city is old indeed," Tharn said in a low voice. "You notice that the buildings have roofs? That means they're older than..."

"Tharn! Orocl" yelled Dril suddenly, swerving around and grabbing for his beam pistol.
We saw it at the same moment. It was

rushing toward us from a side street we had just passed.

I can't describe it. It was like no normal form of life. It was a gibbering monstrosity of black flesh that changed from one hideous shape to another with protean rapidity as it flowed toward us.

The horror and hatred that assaulted our minds were not needed to tell us that this thing was inimical. We fired our beams at it

thing was inimical. We fired our beams at it simultaneously.

The creature sucked back with unbelievable rapidity and disappeared in a flashing movement between two buildings. We ran

forward. But it was gone.

"By all the devils of space!" swore Dril, his voice badly shaken. "What was that?"

Tharn seemed as stunned as we.
"I don't know. It was living, you saw

that. And its swift retreat when we fired

"Ordinary flesh couldn't exist in this cold vacuum—" I began.
"There are perhaps more forms of life and flesh than we know," muttered Tharn. "Yet

such things surely wouldn't build a city like this—"
"There's another!" I interrupted, pointing

wildly.

The second of the black horrors advanced like a huge, unreared worm. But even as we raised our pistols, it derted away.

"We've got to go on," Tharn declared, though his own voice was a little unsteady. "The metals we need are in or near that his tower, and unless we get them we'll simply

perish on the ice shove."
"There may be worse deaths than freezing to death up there on the ice," said Dril huskily. But he came on with us.

OUR progress through the shining streets of that magically beautiful white city was one of increasing horror. The black monstrosities seemed to be

swarming in the dead metropolis. We glimpsed and fired at dozens of them. Then we stopped beaming them, for we didn't seem able to hit them. They didn't come to close quarters to at-

st tack us. They seemed rather to follow us and sucrito us, and their numbers and menacing appearance became more pronounced with every step we took toward het tower.

More daunting than the inexplicable creatures were the waves of horror and fore-be boding that were now crushing our spirits. So I have spoken of the oppression we had feld is since entering the city. It, was becoming worse by the minute.

"We are definitely being subjected to psychological attack from some hostile source," muttered Tharn. "All this seems to be because we are approaching that tower."

"This system is on the edge of the galaxy," I reminded. "Some undersamed-of creature or creatures from the black outside could have come from there and laired up on this dead world." I believe we would at that point have turned and retreated had not Tharn steadied

turned and retreated had not Tharn steaded us with a reminder. "Whatever is here that is going to such lengths to force us to retreat is doing so be-

cause it's afraid of us! That argues that we can at least meet it on equal terms."
We were approaching the wide flight of steps that led up to the vaulted entrance of the great tower. We moved by now in a kind of daze, crushed as we were by the

terrific psychic attack that was rapidly conquering our courage.

Then came the climax. The lofty doors of the tower swung slowly open. And from within the building there lurched and shambled out a thing, the sight of which froze

us where we stood.
"That never came from any part of our own galaxy!" Dril cried hoarsely.

It was black, mountainous in bulk and of a shape that tore the brain with horror. It was something like a monstrous, squasting toad, its flesh a heaving black slime from which protruded sticky black limbs that were not quite either tentacles or arms, cold green fire that whether the strength of the proposed property of the strength of the strength

notic intensity. Beneath that hideous chinless face, its breathing pouch swelled in and out painfully as it lurched, slobbering, down the steps toward us.

Our beams lashed frantically at that loam-

Our beams lashed frantically at that looming horror. And they had not the slightest effect on it. It continued to lurch down the steps. And, most ghastly of all, there was in its outlines a subtly hideous suggestion horrors that swarmed in the city behind us. Dril uttered a cry and turned to flee, and I stumbled around to join him. But from

Tharm came a sharp exclamation. "Wait! Look at the thing! it's breathing!" For a moment, we couldn't understand. when the sharp was a sharp with the sharp was the sharp was thing. I was the brawest thing I have ever seen done by a member of the Star Service. He strode right toward the towering, allobering horror, eight toward the towering, allobering horror, the sharp was the shar

And the black swarm in the city behind us disappeared at the same moment. "Then it wasn't real?" Dril exclaimed. "It was only a projected hypnotic illusion." Tharn declared. "Like the others we saw back theer. The fact that it was breathing here where there is no air, gave me the clue to its unreality."

"But then," I said slowly, "whatever projected those hypnotic attacks is inside this building?" "Yes, and so are the metals we want,"
Tharn said grimly. "We're going in."
The ceaseless waves of horror-charged
thought beat upon us even more strongly
as we went up the steps. Gibbering madness
seemed to shriek in my brain as we opened

the high doors.

And then, as we stepped into the vast, gleaming white nave of the building, all that oppressive mental assault suddenly ceased.

Our recling minds were free of horror for the first time since we had entered this dead

city. It was like bursting out of one of the great darkness clouds of the galaxy into clear space again. "Listen?" said Tharn in a whisper. "I

Laten said Harri in a winsper. I hear—"

I heard, too. We didn't really hear, of course. It was not sound, but mental waves that brought the sensation of sound to our

It was music we heard. Faint and distant at first, but swelling in a great crescendo of singing instruments and voices.

or singing instruments and voices.

The music was alien, like none we had ever heard before. But it gripped our minds as its triumphant strains rose and rose.

There was in those thunderous chords

the titanic struggles and hopes and despairs of a race. It held us rigid and breathless as we listened to that supernal symphony of glory and defeat.

"They are coming," said Tharn in a low st voice, looking across the white immensity of the great nave.

s I saw them. Yet oddly, I was not afraid now, though this was by far the strangest thing that had yet befallen us.

Out into the nave toward us was filing a long procession of moving figures. They were the people of this long-dead world, the people of the past.

They were not like ourselves, though they were bipedal, erect figures with a general resemblance to us in bodily structure. I cannot particularize them, they were so alien to our eves.

AS THE music swelled to its final creseemed and then died away, the marching figures stopped a little away from us and looked at us. The foremost, apparently their leader; spoke, and his voice reached our minds.

"Whoever you are, you have nothing more to fear," he said. "There is no life in this city. All the creatures you have seen, all the horror that has sattacked you, yes, even we ourselves who speak to you, are but phantoms of the mind projected from telepathle records that are set to start functioning automatically when anyone enters this

city."
"I thought so," whispered Tharn. "They

could be nothing else."

The leader of the aliens spoke on.
"We are a people who perished long ago,
by your reckoning. We originated on this
lianet"—he called it by an almost unpronounceable alien name—"far back in your
past. We rose to power and wisdom and
then to glory. Our science bore us out to
uloration and colonization of most of the
uloration and colonization of most of the

galaxy.
"But finally came disaster. From the abyss
of extra-galactic space came invaders so
alien that they could never live in amity
with us. It was inevitable war between us
and them, we to hold our galaxy, they to

conquer it.

"They were not creatures of matter. They
were creatures made up of photons, particles
of force—shifting clouds capable of unimaginable cooperation between themselves
and of almost unlimited activities. They
swept us from star after star, they destroyed

us on a thousand worlds.

"We were finally hemmed in on this star system of our origin, our last citadel. Had there been hope for the future in the photon race, had they been creatures capable of creating a future civilization, we would have accepted defeat and destruction and would have abdicated thus in their favor. But their limitations of intelligence made that impossible. They would never use to civilization.

themselves nor allow any other race in the galaxy to do seem that the force we persished, we would destroy them. They were creatures of force who could only be destroyed by force. We converted our sun into the converted converted our sun into the converted our

sprang a colossal wave of force that swept out and annihilated the photon race in one cosmic surge of energy.

"It annihilated the last of us also. But we had already prepared this buried city, and in it had gathered all that we knew of science and wisdom to be garnered by future ages. Some day new forms of life will rise to civilization in the galaxy, some day explorers from other stars will come here.

"If they are not intelligent enough to make benign use of the powers we have gathered here, our telepathic attacks should frighten them away. But if they are intelligent enough to discern the clues we leave for them, they will understand that all is will hypnotic illusion and will press forward into this tower of our screets. "You, who listen to me, have done this. To you, wheever and of whatever future race you may be, we bequeath our wisdom and our power. In this building, and in others throughout the city, you will find all that we have left. Use it wisely for the good of the gainxy and all of its races. And now, "Farewell," the past to you of the future—"Farewell,"

The figures that stood before us vanished. And we three remained standing alone in the silent, shimmering white building.

"Space, what a race they must have been!" breathed Tharn. "To do all that, to die destroying a menace that would have blighted the galaxy forever, and still to contrive to leave all that they had gained to the future!"

"Let's see if we can find the metals," begged Dril, his voice shaky. "All I want now is to get out of here and take a long drink of sanqua." We found more than the metals we needed.

me round more than the metals we needed.

In that wonderful storehouse of alien science,
we found whole wave generators of a type
far superior to ours, which could easily be
installed in our crippled ship.

I shall not tell of all else we found. The Star Service is already carefully exploring that great treasury of ancient science, and in time its findings will be known to all the salaxy.

It took labor to get the generators back up to our ship, but when that was done, it was not hard to install them. And when we had fused a patch on our punctured hull, we were ready to densit.

As our ship arrowed up through the eternal dusk of that ice clad world and darted past its smoldering dying sun on our homeward voyage, Dril took down the bottle of aspons.

"Let's get these cursed suits off, and then I'm going to have the longest drink I ever took!" he vowed. We divested ourselves of the heavy suits

we divested ourselves of the neavy suits at last. It was a wonderful relief to step out of them, to unfold our cramped wings and smooth our ruffled feathers.

We looked at each other, we three tall hird-men of Rigel, as Dril handed us the glasses of pink sangua. On Tharn's beaked face, in his green eyes, was an expression that told me we all were thinking of the same thing. He raised the glass that he held in his

talons.
"To that great dead race to whom our galaxy owes all," he said. "We will drink to their world by their own name for it. We will drink to Earth."



## THE UNBROKEN CHAIN

By JOHN RUSSELL FEARN

Braving countless dangers, across hundreds of centuries and through a myriad past lives, Drath Gofal seeks knowledge!

GH-WAH, of the Fourth Glacial Age, did not know that people of the future would call him a Neanderthal man. In fact he knew very little about anything except hunting, eating, sleeping, and keeping warm-until one day he suddenly began to warm—until one day he statement segment devise more elaborate weapons for the snar-ing and slaying of the bigger beast which forever threatened safety. This feat gained for Ugh-Wah the reputation of being a wizard, and because of it distrust was bred he began to realize that he had perhaps said among the others of his breed—a childish too much.

superstition of his powers Particularly when he talked in his boastful, snarling jargon of visions. He said he had seen landscapes that had upright men on them, men who went up and down in strange machines, who actually made use of the flam-ing ball that buried itself every night and was reborn every morning To Ugh-Wab, though he barely understood what he was talking about, it was all very real—until

Distrust was all about him. Even his own mate, Gu Lak, was suspicious of him, alarmed at the strange light in his flerce, al-

most hidden little eyes.

Then came a day when Ugh-Wah, foraging, found himself in deadly danger. Daring his hunt for food he turned and shambled off, to stop abruptly and wheel round at the sound of mighty feet pounding behind him. For one short second he stood in parallel horror before an advancing mammouth whose two rubers of the stood in the stood heart of the stood in the stood heart of the s

tiny ruby-red eyes were sparkling with fury. Ugh-Wah wheeled and began to run across the ice-caked ground, shouting warnings at the top of his croaking voice. Behind him the mammoth screamed and trumpeted. The others of the tribe swung around at Ugh-Wah's yells and were instantly on the defensive. Then they became moticoless with

awe at an amazing sight.

Ugh-Wah, not ten yards in front of the
mammoth, suddenly began to become transparent, even as he ran! The watchers could

see the mammoth through his fading body. In two seconds Ugh-Wah had disappeared, and at that identical moment a vast, over-whelming explosion cannonaded from the spot where he had been. The tribe fell back in screaming, disorganized terror before a blinding flash of flame and terrific concussion!

The tribe soon forgot all about Ugh-Wah, all save his mate-and she stlently remembered that he had saved the lives of all in the tribe by the explosion. But how? That was where her undeveloped brain stumbled...

CLIFFORD DELTHORPE was the toughest problem the Board of Directors of Delthorpe's Bank had to contend with Beard of the had, inherited virtual ownership of the had, inherited virtual ownership of the president of it—but what he knew about banking could have been written on his gold cuff-links. He left it all to the Directors and configuration of the banking could have been written on his gold configuration. The left is all to the Directors will be considered by the banking could be compared by the banking could be considered by the banking of the banking

room to his company.

The basis of the production of the company of the configuration of the

our.
"But why not?" she demanded, her egg-

spoon in mid-air. "I thought we fixed it all up yesterday?"
Cliff looked at her thoughtfully. There was puzzled indignation on her pretty face, the prettier indeed for its morning absence of

cosmetics.
"Yesterday has gone, Fay. It's what I say
this morning that counts. The cruise is off.
We're going to do something useful instead

-build machinery!"
"What!" the girl bleated. "But-but I've ordered my outfit for the trip. Done every-

ordered my outfit for the trip. Done everything! You just can't-"

"I control the money." Cliff snapped.
"I control the money." Cliff snapped.
yhead, Fay, that I'm resolved to do something
with my life even if you are not. I've got
work to do in the matter of straightening
out humanity's problems."
Fay could not speak so she just stared

blankly.

"Machinery," Cliff whispered softly, at length, "Machinery incorporating electronic

power."

It was too much for Fav. She sot to her

feet in sudden anger.

"Look here, Cliff, I've had enough of this clowning! If you think I'm going to have a darned good holiday canceled while you dropl about electrons and—and things, you're crazy! I won's—"

She broke off, her eyes widening as Cliff looked at her steadily. It was not the Cliff Delthorpe she was accustomed to knowing. That look in his gray eyes was one of mental force, shattering and omniscient, breaking down all her individual desires. For nearly five seconds she stood in para-

lyzed amazement before his gaze. Then she fling herself from the room and slammed the door. Cliff relaxed a little and rubbed his dark hair in a worrled manner. Going over to the sideboard he poured himself a stiff drink and meditated over his plan. "Maythe haran" in the waved description of the

"Maybe lunacy," he mused, staring into the glass. "Grandfather Delthorpe went nuts —but figures did it for him. Maybe I've got the same complsint. Only figures that have interested me so far have been girls." He went to the mirror and studied him-

seif, saw nothing unusual. At the back of his mind swirled odd little notions and visions —cities of supreme design reared against a dying sum—machinery of incredible efficiency.

h Machinery! That did something to him. He went over to the writing desk and tugged pencil and paper towards him, began to draw...

In the ensuing days it was increasingly evident to Fay that something was radically wrong with Cliff. He became less and less like his normal self and went off into his curious, dictatorial—wet oddly brilliant—

moods without warning.

He talked with an unquestionable accuracy about electrons, wave-packets, continuous union of mentality, time and space lines, and

union of mentality, time and space lines, and various other scientific matters which were utterly over Fay's head. He bought a plot of land out of town and had a concrete laboratory erected on it, to which machinery was delivered and gradually assembled.

Fay watched all this with a certain futility, tried once to get a brain specialist to see Cliff, until his deadly rage at the suggestion frightened the life out of her. From that point onwards she sought some relief from the

nervous tension governing her.

She revived her ideas for a world tour and spent the time with Dick Morrison, an old flame, leaving Cliff to his own devices. Her own plessure was far more important than this strange behavior anyhow—though she did secretly wonder what he was driving at

within two months Cliff had become completely shorted by his ideas and had undergone a strange metamorphosis of character. He descried the city payment and normal ways of living, appointed a proxy to handle his connections with the Banking him a fresh supply of provisions and laundry—he devised machines of various shapes and sizes, machines which bristled with tube and colls as remarkable as they

were revolutionary mixed to this laboratory except Bronon, and—when the ran short of money—Fay. It was her first, and she hoped her last visit. To her inward surprise she found Cliff in a more tractable mood than usual, a curious half and half state, but more understandable, more the man she had more understandable, more the man she had mystifying about him.

mystifying about him.

Fay spoke peevishly, by way of opening.

"At least I ought to have an explanation!"

She gazed round on the banked machinery.

"For instance, what is all this stuff for?"

"World betterment, I hope," Cliff answered.
"Eventually, that is. What puzzles me is I'm not quite so sure about the whole thing as

not quite so sure about the whole thing as I was when I started."
"Still the same old gag," she sighed. "Why can't you be yourself and throw this junk

"That's all 'it means to 'you'?" he asked seriously.
"What else do you expect? World reformers are either nuts, or else a cinch for a kick

in the pants."

He considered, ignoring her bitterness.
"There's a reason for all this," he muttered.
"But I don't know yet what it is. I've been forced to take stock of myself recently, and I've arrived at a pretty definite conclusion.

An intellectual force, somewhere, is trying to establish a contact with my mind. It may be something in the future. I've had curious visions which might apply to a time to come. Yet I'm definitely linked up with something else, and this something—far as I can tell—believes that the mental line of each individual is continuous from beginning to end vidual is continuous from beginning to end

Fay gazed at him, mystified.

"Don't tell me you include reincarnation among your tricks!" she burst out scornfully.

"Call it that if you like, but yours is a primitive term." Cliff answered curity. "It or woman—sever really dies— No, listen to me a moment. The mind, which had its grows in knowledge during the evolution, and during that evolution, it manifolds to future man until, at the finish that make the control of the control of

general of course, when we die, we're incubally always photoget? "Fay saked contools?"

"The body dies, Fay, not the mind." Gilff voice sounded as though he were talking to a child. "The mind lives on and expresses and a contract the contract of the cont

with our mental nature'."

Fay's eyes had become frankly contemp-

"If you aren't the world's prize sap! A multimillionaire, and you go haywire over a scientific theory! Anyhow," she went on impatiently, "it doesn't mean a thing to me, Cliff. I'm more interested in practical things,

like enjoyment of money and—and a trip around the world."
She stopped and screwed up her painted brows in unaccustomed thought for a mo-

ment.
"Did you say something in the future is affecting you?" she asked slowly.

"I think so, yes."

"But how on earth can it? The future isn't here yet."

CLIFF smiled tolerantly. "It isn't here, but it exists. Past, present, and future always exist. We move along a definite course in Time—and that course is evolution. The windown force which has every atom and windown force which has every atom and windown force which has every atom and the same and the passadors of the control of Time. We pass along it to some ultimate stage, experiencing on the every what seekers and the same a

"Heaven save us!" Fay groaned. "This gets worse! Anyway it still does not explain how the future can affect the present—can affect

"But it does!" Cliff insisted. "A person at the end of time has one very imigular advantage—in fact two advantages. He has a protound scientific mentality for one thing, and for another he is able to recapture the withrations of a past time. Even today we admit the possibility of being able to trap light and sound waves from a past time, but we haven't the necessary mental development to work it out.

"Everything that is seen, heard, or experienced is caused by the activity of electrons and dissipation of enegry, all of which is distributed somewhere in the Universe and can, by machinery complicated and intricate enough, be recalled and refitted into place.

"If I had that power I might be able to see my past selves stretching away light down through history. Unfortunately I have only a limited brain. But wherever this force which is guiding me may be it's taught me pienty. Especially in the knowledge of how to build machinery to improve the world. I

still have a lot to do."

Fay tightened her lips. Then with a help-less glance, she went out of the laboratory and into the small living room off the laboratory. She spent half an hour trying to decide what she ought to do. But the decision

was taken out of her hands.

Just as she had made up her mind to leave,
that living room, the laboratory, and everything attached thereto, went up in the
mightiest explosion New York had known
in many vears...

The curiously contoured, big-pated figure moved very slightly in his chair, stretched out a lean knuckled claw of a hand and pulled a switch. A periscope screen came into life and pictured a view of the world existing outside this buried, Arctic laboratory. It was not a cheerful view, but none the

less it was one to which this being, Drath

Gofal, was accustomed. Stretching away to the everlasting, bril-

llantly cold stars yawned ice fields, bordered to the west by a mountain range. Gold might have imagined himself alone on the planet were it not for the fact that be knew, beyond the mountains, the last men of his construction of the mountains of the construction of the start being out as wanting existence in red, dying sun. Everlasting sun, even as just here there was everlasting dark.

The ceaseless struggle of tidal drag was over. Earth swung round her master with one face always towards him, wabbling only alightly on a faint libration which occasionally brought the barrier reefs of Twilight Mountains into the sunshine and melted the accumulated snow and ice to provide water for the last man.

Strange, inhospitable world! The husk of a once beautiful planet of soft winds, expansive seas, and life-giving sunshine. Only the stars seemed unchanged, and even they were misted by the presence of embryonic rings.

The moon had returned to Earth, broken up. Synthetic air, water just sufficient to maintain life by melting processes— Man might live on the sumward side for many thousands of years with such perfect science and synthetic powers at his command—save perhaps for one thing. The Ice Life.

Draft Gofal, out here in this specially constructed laboratory, erected in the first instance for quite a different purpose, was to far the only man—excepting his sasistant Microscopic, destructive, insatiable life, spawning in the ice itself, life that in truth belonged to other barren worlds, that had been spewed on Earth in spore form when drawn by the moon struction in Earthdrawn by the moon struction in Earththrived at 500 degrees below in the Earththrived at 500 degrees below zero Certifigrade.

-tiry organisms which digested the water content of the ice, life that would one day adapt itself to sunward-side conditions and devour everything before it unless something happened to bring sudden and extensive heat to this Arctic waste and destroy the queer, malignant bacteria in its early stages.

RATH GOFAL sighed. "Heat or else explosive. Heat we cannot afford because we need every scrap we can manufacture both here and in the city. And explosive would certainly wreek this laboratory completely and ruin my experiments. A pity indeed that it happens to be directly over-

head...

He looked at the periscope screen again and studied the view of a starlighted, brownish area about a mile and a balf in width lying immediately above this buried retreat.

"At the moment, Flan, we can do nothing, he observed. "We shall have to decide sooner or later which will have to go-this laboraor the Ice Life." He turned and looked at Flan's face beneath its bulging head, "You followed out my orders and advised them in

the city of the presence of this life?"
"Yes, Gofal-and also warned them to make no attack on it for fear of destroying

Like his superior, Flan was a short, bigchested, big-headed being with a muscular pipe for a neck and thin arms and legs. His slightly smaller head was the sole indication of his inferior position to Drath Gofal him-

Drath Gofal switched the screen off at last, rose from his chair with a slight clink of metallic clothing, and walked across to the machinery jamming the main portion of the laboratory. For a time he stood musing before a sprawling mass of tubes, globes, and

electrical equipment. Presently he turned

"I shall have to finish my work without " he said thoughtfully. "And you know. Flan. the more I dwell upon the ultimate possibilities of probing back along a mental lineal descent, the more I think we were wise in burving ourselves here, away from all interference, and likewise from all possible disturbances we may create in the final stages of the experiment. There may be He paused gravely, "You realize that?"

"Science only gives her greatest secrets to those who are not afraid." Flan answered, unperturbed. He belonged, like Gofal, to a race schooled through ages to be absolute masters of emotion. His small but brilliant

eyes surveyed the machinery.
"You have definitely proved then, Gofal,

that such things as individual mental lines exist?" he asked. 'Beyond all doubt." Gofal nodded his mas-

sive bald pate. "From the dawn to the close of evolution everything is mapped out. Since it is beyond all question that simultaneity of instants exist all down an individual line, it is possible to make contact with one's past self-or more accurately the matter manifestation existing as one's past self-at any time in the past. That was why we set out to master the forces of electron waves."

"You set out," Flan corrected. "I have barely been able to follow your postulations. I realize only that your mind-my mindevery mind, has evolved from the beginning and has possessed various matter forms. which forms are changed only at the mutation named death. I understand, too, that all Time can be mentally explored. But beyond that-

Gofal interrupted him.

"I have no reason to know that at every state in the past a certain order of electron waves was in force. While it is almost impossible to discover the exact electron formations of inorganic, non-intelligent substances, it is possible by mathematics to determine the exact wave form packets that made up

any specified individual, myself for instance. "Bear in mind, Flan, the fundamental truth that there was more organization in the world yesterday than there is today. The old-time scientists didn't know how to calculate the exact extent or disorganization in a single living being, though they did admit that any change occurring to a body, which can be treated as a single unit, can be un-done. If they had known, and had built mathematical machines such as we have here. they would have been able to find the exact matter state of any unit or living person at any time in the past.

With these machines of mine we know the exact entropy, the exact disorganization of energy, of any living object in the past. As I have said, inorganic substances do not concern us. I chose my own lineage because it is one in which I'm most interested. As you have seen. I merely placed myself in the core of these mathematical machines and allowed them to calculate, from the electronic state I now possess, exactly what organization I possessed at an earlier instant."

OFAL permitted an expression of satis-GOFAL permanen .... faction to spread over his face

To a certain extent I was successful," he went on pensively. "It is of course impossible to move physically in Time, and therefore my body remained where it is. But my mind, not being limited by any material force, returned down the lineal line, and when a particular instant of organization arose to which my mind definitely applied, I automatically became part of it. In truth, I took on a former body, and since Time is unalterable, I did exactly what I had done before at that

period The only difference lay in the fact that there was a mental overlap from my present knowledge. This had the effect of making me far cleverer than was normal to that past state. But as records have shown, I was clever in that past state. Therefore Time did not err.

"In my first venture I traveled back mentally to the limit of dawning intelligencea very early Neanderthal form. I think I was regarded as something of a wizard. I rememher that my last experience there was of building extremely cunning traps for animals, despite a growing distrust among my people. Then I came back here and fixed the organization for a much more advanced age." (Turn to page 96)



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Gofal paused and smiled faintly at his

recollections. "I must have been a fool in the early modern period," he murmured. "I spent my time drinking strange substances that fuddled me and exchanged curious paper sheets that gave me anything I wanted, Here, again, though, my present knowledge overlapped a little and I unwittingly changed my nature into that of a true scientist. I built machinery with which I honestly intended to better a very unhappy world. I found, though, that I was considered a lunatic. I was desnised by my very small-brained wife, in spite of my vague effort to explain things and give her an underlying glimpse of my real intentions. In the end I got weary of it and came back here.

There was a pause. Flan waited attentively. Presently Gofal uttered a deep sigh. "And yet, Flan, some of those early modern scientists had the right idea," he resumed.

ern scientists had the right idea," he resumed. "I mean ideas on which our modern science is built. Many of them dishelieved in death and pointed to child prodictes in music. science, and religion as reincarnated geniuses carrying their knowledge over a mythical gulf. They pointed to so-called seers as people who knew the future, not realizing that such folk simply had a better sense of their Time-line than others. Still other people had memories of past incidents, memories of having seen certain places before. Dreams, amnesia, many thing that explained the underlying truth that only our science has brought to fruition-the knowledge that real understanding begins where what was formerly called the subconscious region

exists."

Gofal stopped talking and regarded his apparatus. Flan still maintained a respectful

silence . . . "The one thing that still remains to be mastered in mental science is memory!" Gofal said at last, clenching his fist. "I have proved that it is possible to retreat mentally and live in a former state, but that is not everything. Think, my friend, of the infinite wisdom that could be encompassed if one had the memory-the clear, vivid remembrance -of everything one had ever done! Think of the storehouse of knowledge, the multimillions of useful little things forgotten in the turmoil of progress. With a complete memory of everything I've ever done since mind began I could accomplish miracles, lay the foundation of a science that could mold the

whole Universe to my desires!"

There was a certain fanatic urgency in his voice at the last words. He faced Flan's calm, inscrutable eyes.

Im, inscrutable eyes.
"If you have accomplished so much, you
(Turn to page 38)

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"Not at all," Gofal contradicted, "Mental force is outside the realm of time, space, and matter. It is a power of its own, something which cannot be described, something that is! Even to remember what one did a few moments before is proof of that. No matter how far back one remembers it creates no disturbance in the Universe. That is a plain fact. My idea, however, is to make memory crystal clear and not vague.

But remembrance ends where the birth of an individual begins," Flan pointed out.

HIS observation gratified Gofal, "Exactly so, Flan, but in each matter state we have progressed somewhat. The same mind goes on with the mutation of death alone forming a blank between this physical experience and the one preceding it. That is why, if I eliminated all my matter states preceding this one and left only the mind-which is indestructible-in a state of complete disassociation, I would have a continuous record of my past in my memory now. It is only the individual presence of matter forms, each utilizing a portion of that complete memory stream, which prevents it being continuous.

"But how would you be born?" Flan demanded. "You are at variance with the law of Time, Gofal! By defeating your own physical forms in precedence to this one, you

could not exist Gofal sighed. "My dear friend, how wrong you are! If a man is utterly blown to pieces it does not stop him being born again, does it? His mind cannot be destroyed, and even though his new body prevents him remembering what happened to his previous forms. his mind is that far advanced. His body is of no account. Indeed, it would not be there at all but for him holding its presence to be a fact mentally. If he could utterly disbelieve in it, it would not exist. Bodies only exist by the force of the mentality held over them. If then I separate the mind of all my previous entities from their matter bodies, they simply cease to be. I am not affected. Yet I shall be the possessor of an unbroken memory chain from the very dawn of intelligence.

But the inconceivable number of preceding bodies you must have possessed!" Flan cried

Gofal smiled. "Not so many as you think With each succeeding body, life has lasted longer until, at our present stage with no untoward hostile influence, we live tens of



thousands of years. According to the mathematical machines I have had seventeen thousand previous matter-existences, and more. Each one ended in the mutation named deaders are suffered in the mutation and the second of the most contain valuable movedees. Just to move back mentally and study each of these seventeen thousand existences would be impossible, for it would take all eternity and even then it would problem to the second of the second of

"And you can do this?"

OFAL looked at his machines thought-

"Yes I have reason to believe I cm. I have thought so from the outset of my experiments, and the presence of this Ite I Life now mentioned the mastery of mind over matter, and I have mentioned, too, the individual present state of evolution. Assuming then that the disorganization calculators are sail allow them to work slowly backwards to the beginning through all my varied states. Also allow them to work slowly backwards to the beginning through all my varied states. Also most office of the state of the slow of the

perior knowledge. "By the time I've reached the lowest manifestation of matter. I'll have eliminated all the states of matter between that state and this present one. By that means, when I return here to take over my body again, I'll have the full knowledge of my entire mental past with no material interventions. It will be swift. Flan. Mind is incredibly rapid. infinitely faster than light. Mind takes no more time to remember an incident of a momen't before than it does to remember a century. Indeed it is even possible that the two past selves I have already visited will hardly be aware of my present absence, so swiftly shall I resume contact."

"And then?" Flam asked slowly.
"Then I can do as I choose. With such
knowledge I can even be rid of this body and
become a pure intellectual. In fact I believe
I shall. I could do it now if I wished, but
that would be of no advantage without past
knowledge added to what I already possess.

I shall. I could do it now if I wished, but that would be of no advantage without past knowledge added to what I already possess. You, my friend, during this process, will see to it that I am kept fed, as on the other occasion..." CARONY GUICK

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Address.

EPLAN said no more, but he wished he could foresee exactly what would happen. He felt that there was something which had not been taken into account. The machines, flawless though they were, were only mechanical, had not the human gift of foresight. Still, since Gold saw nothing to im-

pede him, it was not Flan's business to argue. He watched as Gofal seated himself in the sunken chair in the heart of the mighty, incredibly instricate machines which built up past time-matter states from the basis of or-

past time-matter states in ganization of energy.

"Remember to nourish my body at regular intervals, Flan, no matter how long I may be," Gofal instructed him. "I shall always be linked to it until I return, though I'll not he conscious of the fact."

Flan nodded silently and his tiny eyes watched as Gofal thrust in the main power switches in front of his chair.

Immediately, the same strange happenings as on that other brief journeying through mental realms became evident. Four unwavering bars of vermillion radiance poured from the whirring hearts of the profound mechanisms and bathed the motionless sa-

vant, Gofal, in steady fire.

'His hody became rigid— his eyes stared

into vacancy.

He was temporarily a body without an active mind, a body still only visible as a

hody because of the conscious knowledge of its presence which Gofal still retained deep in his mentality, just as a man is still subconsciously aware of his body though he dreams.

Fins sat down and waited, his eyes glancing ever and again to the queerly fashioned clock on the wall. He tried to picture what must be happening to his master's mind—his whirlwind manifestations as he passed with unerring accuracy over his former states of machine, fitting flawfessly into position as the fitting flawfessly into position as the fitting flawfessly and of mental time.

in an audacious effort to master all Time's knowledge in one mighty sweep.

Just for an instant Flan questioned if it was not tempting science too far....

True to his orders, Flan kept a steady watch over the motionless form at the machine, fed it with injections on long mechanical arms in order that he might not graze the fringe of the penetrating, mysterious rays hull up hy complex forces.

In the long, wearying intervals hetween, he studied the ever growing Ice Life, noted with alarm its tremendous increase.

"Gofal must return soon," he muttered
"If he does not we are endangered and—"
"Gofal has returned!" a voice observed, at

his elbow. Flan swung round, found Gofal right he-

## YOUR RAM CMSS MUST CARRY ON





You know what the Red Cross has done oversees in World Wor II. The World know: It, another glorious page in the history of your Red Cross is being written. Each of the 3,754 chapters in the notion-wide Red Cross network: , just to your bool chapter. . . did "Its full have to make possible all the help and comfort given our Eighting men. But that is early helf the story. Now your Red Cross chapter is a los buy with Home Service. First Add Diss ster Relief and Home Nursin. side him, an inscrutable smile on his wizened face. Flan shot a glance back at the machinery. He had been so lost in thought he had hardly noticed that it had ceased its

activity, was rayless and silent.
"Gofal!" he cried. "You've succeeded!
You've done what you expected!"
"Eyerothine" the

Everything, 'the seemist assented eaimy.' Two preventions of my body remains between this one and the first body remains between this one and the first with the seeming of the seeming of

colossal is my knowledge, Flan, I feel that this world is singularly uninviting, almost beneath the scope of my mentality." Flan's expression changed. He noticed there was a curious, burning light in his master's eyes, a light of tremendous domina-

tion and with it a certain insufferable conceit. "So, you wonder?" Gold asked softly, reading Flan's mind. "You need not. You see, in detaching my mind from its previous matter bodies I showbed something of the ego of each. That was unavoidable, in their me, and the gift of supreme memory means too a fraction of individual seg from each of those bodies. I am the only absolute, complete man which ever existed—mentally and

physically.

"I can wing space, pit my knowledge against the superpowerful intelligences which dwell in the cosmor, master the deepest secrets beyond the furthest starr. In learning the control of the

POP a moment Gofal paused and looked at Flan long and earnestly "Flan In, and earnestly "Flan In, a me leaving Earth," he stated simply, "I stated to eliminate this body of mine even as I have its predecessors—eliminate it from all concepts. It is the last body I shall have in the normal way. I want you to leave me and return to our people. If you would learn my servets and have my knowledge that the property of the property o

I have fields so advanced to conquer that this is the parting of our companionship."
"But—but why must I go?" Flan asked anxiously. "If you depart, what is to shop me remaining here to study your machines? I can complete the details for my own use?"
"These machines are useless to you, Flan. They deal only in the energies relative to

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Get Reile! This Proven Way

Why try to were abone with tremes that spage your Sub-spaces have a hope and offer-driver norshing of the state of the sta

myself. But the records of their construction are in the city. You can loss about to record the city. You can loss about to be blown to pieces. I discovered semething on this particular journey which I had not quite reckoned with before. The effect of its very abrupt change into pure energy the state from which it originally cameits very abrupt change into pure energy the state from which it originally cameits very abrupt change into pure any entre form of a body is definitely a mirror of the mind controlling it. A man can think to. Remember the old it me hypochondrists.

"So the effect of sudden energy in place of matter produces an exploston of terrific violence. That is what will happen when I depart, what has happened in every state in the past where I have destroyed the concept of my body. Oddly enough, I believe that on two occasions—my Neanderthal and early modern forms—my disappearance was actimodern forms—my disappearance was actibed to the point of the point of the body is Killed and not the mind I have noth-

ing on my conscience.
"The decision rests with you, Flan. If you are destroyed, you will live again in some other matter state. But if you live a ayou are, you will be able to follow out, my experiment of the construction of the consent this live is may meet again. Incidentally, my departure will produce sufficient destruction to smesh this ice cap for a con-

destruction to smesh this ice cap for a considerable distance. Energies will be released which will destroy this Ice Life menace completely. You have your choice." Fian hesitated for a time, looked at the silent figure of the scientist who had mastered the ultimate secrets of matter and mind,

had gained memory and knowledge unlimited. Quietly he turned and donned the heavy, insulated suit for wear on the surface.

"You will see me safely out of danger?"
he asked.
"Of course."

They bowed to each other with the calm impartiality of their race, looked into each others' eyes for a moment. Then Flan opened the massive airlock which gave access to the jee tunnel leading to the plain above.

He broke into a run as the tunnel's natural: slope took him higher and higher, emergingat last through the great nir-regulating vent system on the surface. No cold or thin airreached him through his suit. He turned his face, towards reality of the surface him to prove the surface of the surface of the variable of the surface of the surface of the watching his progress, impatiently noting the minutes passing by.

Finally Flan reached the vast pass through the range giving access to the distant city on the sunward side. Here he turned. He watched the sudden wild pounding and heaving of thousands of tons of ice, the spouting of vivid electric discharges. To his headones came the rumble of vast underground

He saw a huge area of water boil in the crumbled ice where the heat had melted it. And he saw something more-the utter incineration of a carpet of malignant brown Arctic Life, forever destroyed by that dis-

charge of electric energy.

Flan's spirits rose. He imagined that supreme mind winging its way invisibly across the infinite towards the eternal stars. With a steadfast heart, the last determination of a last man to follow the only way of science, he turned towards the red-lighted city in the

#### THE ETHER VIBRATES

(Continued from page 11) on Terra or even on Pluto. Phoocy, Frogeyes, fetch more Xeno. That one put a chill up our back.

#### ANOTHER CANADIAN CAPER By Joe Baruch

Dear Segge: I will take this opportunity to v your propressing?? mag. Your novel—if that classic then my name is not John Henry, and assure you that my name is not John Henry. Quote. "Suddenly Joan did an astounding this spatched has impeliers from Curt's band and c

this were not true would still keep going at the same speed the ship when they left it until something stopped them. re's low I line up the stories: se Forgotten Man of Space—P. S. Miller—For Once

Something seems to be happening in Cana-da, Xeno-I mean, Snaggletooth. The Fans in that semi-frozen land of icicles and mosquitoes, Molson's and tundra, are getting more impudent. Better put a dent in their Heaviside layer while we're en route to

vaporize Danas. As to where the impellers would drop and all the rest-get out in space some time and try it yourself, pee-lot. It can be done, take Ye Sarge's word for it-what's that Wart-You say my word is worth what? Careful, or you'll be dipped in the Xeno vats again. You know what happened the last time that happened. This time I won't let Snaggie and Froggie waste time with the

atomic scrapers decrusting you.

Ø ske I can ear Steak again!

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As for the dames on the cover, Kiwi Baruch—who's nude? But at least it's an idea—the only one you came up with.

#### NO SUCH ANIMALS By Richard E. Wimer

STARTING SPECIAL WAS UN PROCESSED ON the New World. For the first till up as a long time I can returbally say that I really endough reading a Combon Fulician was a long to the combon of the combon function that Captain Future's expenses here been rather strength and the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the comtage of the combon of the combon of the combon of the comtage of the combon of the combon of the combon of the comtage of the combon of the comtage of the combon of t

Thanks for the praise—we were about due for some, wiest-ee-pas, Froggle? And Ye Sarge is honestly sorry he early help out your back-issue collection. But file copies are scarce on this asteroid, especially for older issues. Perhaps some fan will help you out. We'll give him a quadrupal Saturaian benered toton if he will. And now, Wart-ears?

### NO SHORTS? HOW IMMODEST!

Now Look Here Serge: I know you went to update Cop Future science but for the law of Free publish read in a ring to fine hunder of Fue Future. Why weak all you can be supported by the future of Future stories which was a contract for the Cop Future stories that have appeared to the Cop Future stories to the law of the Cop Future comment of the Cop Future stories to the law of the Cop Future stories of the Cop Future stories of the Cop Future stories of the Cop Future comment of the Cop Future stories of the Cop Future comment of the Cop Future stories of the Cop Future comment of the Cop Future stories of the

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The crop's lean, methinks, Snaggie, old tooth, and the pickings are poor. Ron, the Mad-Ox, indeed. Porsooth, Froggie, fetch the Xenemint. Ye Sarge needs a purge after that one. Trimmed edges—don't they ever want anything else?

want anything else?
And as for the ads—they are what keep our Earth-staff esting. Furthermore, from page 11, on which OUTLAW WORLD began, to page 82, which is far back in the runover past the end of the featured story, only a

trio of spot advertisements appeared. Take a look at other magazines, my voluptious Virginian, if you think that is bad. You have Ye Sarge seething in his soup. Take it away, Wart-ears, and bring on the next missive.

#### INVOLUNTARY INJURY By Charles Mackay

Door Street: Editional Ministers is based with a hanged Fastiers years live ever redd, and I've read pictory. There is no many and "Garden Fastiers place has a fastier based hanged in "Garden Fastiers" in This never is about all that neved the Winter that from the never is about all that neved the Winter that from the and the "International Intelligent was suspensible." But not internate to the property of the Button of the property of the United as he of the tire writers to \$5.1, have no kink to propose binness of ten jut, \$6, Spenney \$5 and the \$7.50.

TWB) and the rest of the time he is acceptable, at least the second of the except the nevel and the find of Fame spit. Meat of the short tested are time anyway, that is lose if "Indicant you croud part more passe on the long alony. Rocks golds, I think your meat it own; code convention, the second of the second of the second of the second is until the second of the second of the second of the is until the second of the

Thanks, Charles, old pee-lot, for most of your note. But you did us a serious involuntary injury by your mention of Clark Ashton Smith after the big boner pulled on last issue's cover by Snaggie, Froggie and Wartears. However, the DIMENSION OF CHANCE in this issue should compensate. And get a load of that illustration by Stevens. If it isn't a masterpiece of STF art, I'll eat the legs of that giant frog in the foreground. Gourmets say they taste like chicken, but Ye Sarge scorns such lesser Terrean fare. And you too would seek to remove Ye Sarge's shorts. Tsk, tsk! How lewd! Seriously, Charles, while the Winter issue may have been weak in that department, let's look back a little to see what we can see in that department. Looking back over the past year. and excluding the H of F reprints, the list includes short stories by Frank Belknap Long, Leslie Northern, Ford Smith, Mal-

colm Jameson, Ed Earl Repp, Murray Leinster and Francis Flagg.

That ain't bad, especially for a year in which too many able writers were engaged in war work of some sort or another and inventories were running low.

Now that such gitted authors as Kuttner, Hamilton and Jack Vance, to mention but a few, are back at their typewriters and a whole new generation is due, don't you think we ought to keep the shorts in the book? Removing them might well be denying a chance to some young author of talent who

[Turn mage]





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has neither the experience nor the reputation needed to qualify for a lead novel assignment?

Ponder it, Kiwi, and then make up your

#### Ponder it, Kiwi, and then make up your mind. THAT ONTARIAN ANGER

By Ronald Anger

Deer Sange Sait: After hacking out myrision of fan stater, I could havely believe my priou-dective cells stater. I could havely believe my priou-dective cells of the state of

Other and most the many the second of the se

did hiegem to Duptelx?
All the depts, were swell this number.
Sarge, do you ever read a rag called THRILLING
WODER STORES? It had a good cover this Falli—
\$50 Highland Avenue, Ottene, Ostavio.

Since you ask about that most unpopular of STF stories, THE JIMSON ISLAND GI-ANT, YE Sarge took the time to check the finale. Dupleix starved to death because, in reducing the size of his island he not only wrecked his plane but so destroyed his shack that he couldn't get into his supplies of food, et cetera, without a buil dozer, which he didn't have handy at the moment. Enough

said.
But your snide and indirect attack on the cover was neither subtle nor justified to this did space dog's very of thinking. What's that, Smagnie, old tooth? Did my eight ears decive me, or did you. - I thought so ? to the Xeno vats with him. Oh, all right, so you're sorry. But, but, you're kind of late with that apology. Ye Sarge does so think—in his own inimitable fashion in his own inimitable fashion.

OFF WISCONSINS

Dear Sarge: I don't suppose you give out the ad

es of any of your authors, so just how do sout writing a fan lettee? Is it through you I'm a rabid reader of TWS as well as y one comple dimond Hamilton and his Curt Newton, of course, my favorites, and I hope how that E. H. is out of Army, we have one of his out-of-this-world stories ray issue. The authoreus I really enjoyed was Leight helps of the been watching for mother story by the course of the c description of herself in "Meet the Author"

fer description of hersalf in "Meet the Author" we in especially the part about lying on the sand at sing. It sure made me homesick, for that's just will be an expression of the long of the death for will to give a sure made of the long of the will be toping you can give me her address and, if not, it r how much I endoged her stoory and description close with a great "shoat" to your magazines as there.—Streamforton, Washington.

Kiwi Comber, you may not know how to write a fan letter, but you just did. That was a very nice note. As to giving out addresses. it is against our rules to do this. But should you care to write Miss Brackett, a letter addressed to her in care of this magazine will be forwarded to her. She is a gracious young lady.

#### NEW PARTY FOR ANIMALS OR SOMETHING By James H. Madole

Dear Sarge: I have not written to y-before, but I find both the stories and comments extremely interesting. I refer ion.

excellent idea and a worthy project a
it is an idea that my group is alrea
We, however, are working on the pr

p is known as the Animalist Party. We are pling to bring together all the Science Flo-s into one unit for the purpose of creater world now. I should like to hear from all ple and groups who are interested in this project E. Main Street, Beacon, New York.

Quick, Frogeyes, pull that plug! Ye Sarge should have known better. A gang that picks such a naively un-apropos name for itself is hardly going to inspire confidence among STF groups to say nothing of the world at large. Seriously, kiwis, your intent is noble. but your resources sound weak. Keep plugging, however, and don't mind the leers and sneers of this cynical old astrogator. He's seen old Terra "improved" too many times with dire results to approve of same,

Perhaps if all the drawing of the alleged brave new world to come didn't make everything look like a chromium-trimmed hot-dog stand, he'd be for it more strongly. But hot does and Xeno don't mix. Burrryrppoppal

#### GEORGIA KISS-OFF By Merle Franklin

Hello, Sarge! I was walking down the street and, by chance, stopped at my magazine stand. Gianzing at the [Turn page]



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men, m. or see seed from bode to hook. Sailard v. or W. Whit a higher for white the slighted for the seed of the s

ton's story, "Outhre World," rates a 98. A dimend came through with a neat novel, es when it is a CF yarn. Brett Sterling was belitted, but I'll take E. H. any day. Do yo

ways enleyed. I am awarding it a SI this time for its ulcan, the Outlaw World. Roses to Rehm's imsolion of you, Sarpe. I never yet have seen a better roses. THE FURIEN VIEWATUS was a lot of its result of the property of the Well-maybe assume day I'll Well. all scores averaged, get a straight of 6,7 the ang good natured, kind and understanding. I'll give ur department a 62.

I think I'll stop for now. Until you barn white with comparing stops sid cranges posts after from drikking carrier, groups sid cranges posts, after from drikking of Pilutalan pink gin. It's only 188 1/7m proof. Hicknerstell, McGirry Assdems, Canhesville, Georgia.

Crawl back in your hole, Brother Rat, you left out moonbeams after your (or are they Ye Sarge's?) polks dots. Furthermore, by a

special super-atomic unlimited distilling process. Xeno is today brewed at 2,239 prod and the limit is not yet in sight. Hick! Hie!! Well, that's that, fansies. Try and get your epistles in a little sooner from now on so that Frigages, War-Ears, Snagglectoth and Ye Sarge can get to work on them a little earlier, We premiss to do a job you!! Jind soon forget, Amen until next swing around the System.—SERGEANT SATURN.

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### REVIEW OF THE ... SCHENCE FROTROM

FAM PUBLICATIONS

By

### SERGEANT SATURN

Reviews, Ye Sarge would like to mention a couple of items that seem to him to be

deserving of comment.

The first is the second booklet to appear from the Aldem Press, compiled by Forrest J. Ackerman in memoriam to his brother; who was slain in action fighting the Nazis last year. A nice printing job, its contents are mostly taken up by a reprint of an autobi-



ographical sketch by Francis Flagg describing with savage bitterness how a brother of his was crushed to death by economic forces following World War One.

forces following World War One.

While the memorial idea is a fine one, this
seems in questionable taste, to say nothing
of relativity, to anyone but an out-and-out
nibilist. Ho hum.

But a savage rebute to one David D. Dagmar, another Californian, who has produced something that hardly belongs in fandom at all. It is called MAXIN 93, whatever that means. Ye Sarge is going to quote a Fanzine ceilior and author, Joe Kennedy, of Down cut and the product of the control of the conquite adequately with far and feathers in his VAMPIRE Says Joe:

This cone is a pathetic mixture of fact and fancy, no more whatever bean offerred fee any of the statements, as the main, the built of the mag connects of letters on beginning the health great a varie to the decision. The mag is rounded out by filler quotations after analysis blobel on such, and some full part and statement of the statement of

Which seems to say enough and very neatty too. Meanwhile, according to a new cardzine entitled MERCUHY, Doris Currier, the well-known wonder-witch of Salem (Mass, not Oregon), is reputed to be planning another fanzine as well as another convention of fams. The zine will be welcomed, at least to save a second of the same than the same to the same than the well of the same to review this toget is the same than the well-

[Turn page]



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WASHINGTON E. C.

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Only seven magazines could be fitted into the A list, while the B list, exclusive of the cardzine mentioned above, totaled but one more. Are you fellows and girls losing interest or energy, or are you giving up on the Sarge's honest, integral reviews? How about SHANGRI L'AFFAIRS' What gives? Well, for what we have on hand, here goes:

CEPHEID, 2302 Avenue O, Brooklyn 10, New York. Editor, Milt Lesser, 10c per copy. Published quarterly. 40c per year.

Lesser has an interesting looking new magazinhere, although his cover is of the involuntary horsevince fen he's serious about May (or is it passion and invince fen he's serious about May (or is it passion and in a short item. Chatter is good for an Zait-Coast Zink and P. Schoyter Millier blass hack in Joudes' if not as easy to be a serious and the serious control of the New Torks and the State of th

FANTASY COMMENTATOR, 19 East 235th Street, New York 66, New York. Editor, A. Langley Searles. 20c per copy. 6 conies \$1.00.

As heavyweight as ever, this issue contains plemy of meet none the less. Mockovity begins a detailed scholarly and rather pretentious history of STF and several other strikets seem to be focused chiefly on dissecting the problems, including an article on Taine by weight of material woulding an article on Taine by weight of material would make the whole more in-

THE ACOLYTE, 1068 West Sith Place, Los Angeles 7, Childrenk. Ox-editors, F. T. Laney & B. D. Russell. Published quarterly. 15e per copy, 4 copies 50c. un much bridge produced critics on R. Jan inconverse un much bridge produced critics on R. Jan inconverse to the bold of this lases 12d conics-stated pages? in a submote of by co-clettle San Russell. It is 18d pages? in the submote of by co-clettle San Russell. It is 18d pages? in the submote time trained man for once, with Bold Tucker times trained man for once, with Bold Tucker times trained man for once with Bold Tucker times the submote San Russell. It is 18d pages for are connectedly believed 25th 1 to 4-digit fractions for San Russell. 18d pages for the San Russell San Russe

THE GROTESQUE, 1870 East 33rd Street, Brooklyn 10, New York. Editor, Ron Christensen. Se per copy.

Another new one, at least to Ye Sange, despite more of less parity contributions by Charles Burbes and Joe Rennedy, this job, in content (which is suphomorar for the most part), printing (which is suphomorar for cover twists in artennite symbolism) havely legible) and cover twists in artennite symbolism have below the cover twists in artennite symbolism of the cover twists are supported by the cover twists and are better fuck next issue.

THE SCIENTIFICTIONIST, 13618 Cedar Grove, Detroit 5, Michigan. Editor, Henry Elsner Jr. Published irregularly at 10c per copy.

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tinguished book reviews and a not unobvious piece scientific progress in wartime till the bulk of the and tosse. Thoughtful, if a bit searcy.

VOM, Box 6475 Metro Station, Los Angeles 55, California. Editor Sergeant Forrest J. Ackerman. 15c per copy, 7 issues \$1.00.

The old fen letter box, still probably the most pro-voting, etimulating and anualing of all fandines, is been seen on any 5TF publications, pro or am-done respectively by Wiedenbeck and Goldstone. Fen who missed them missed something well.

VAMPIRE, 84 Baker Avenue, Dover, New Jersey. Editor, Joe Kennedy. Published irregularly at 10c per copy.

Keinedy, in his fourth issue, has come up with far and away his must ambitious effect. We liked it in spite of a profused interview swit by Sange entitled "Bed and a profused interview swit by Sange entitled "Bed about swrings for such efforts, but Tucker and Lasey were in excellent form and Chudsey's book reviews were obe. As for Tigrina's "Oh Sole Meow!"—we failed to find all

Well. Kiwis, that's the A list this time outsmall and not a knockout but possibly more sombre in tone than any such group of fanzines Ye Sarge can recall. This brave new world seems to be turning a trifle sour on the kiddies. And from our vantage point on the asteroid, we can't say that we blame them, Now for the busy B's-

news sheets thanks to its overseas slant

PSFA NEWS, Published 3597 North Sydenham Street. Philadelpitis 40, Penntylvania, Published monthly, 10c or the Philadelpitis Science Fiction Society, compiles with minutes and some very miner and very comp poems, spar and other contributions. A bit too local.

QX, Published 123 Edna Piace, Buffalo 8, New York Ken Krueger editor. 3 copies 10c. Krueger, now is uniform makes a creditable if highly (or is it lowly?) juvenile effort to keep his famine activity going under

TERRIFYING TEST-TUBE TALES, Published by Jeonge R. Fox and Joe Kennedy at 600 Orchard Street, Bahway, New Jersey. Price and published the street, and published the listed of the Sargie hasm't quite figured thus little listen rut, although it seems to be another very local following a larding of parody that must have the Inte-Chaples Stewart Colverty dong betreathsi pirosettes.

THE FANEWS, Published 1663 Fearth Avenue Sour Faree, North Deleon, Editor, Wall Dunkelberiner, Belley of formation, enough anger to give it spice without be stort-headed and an occasional surprise feature. Ke it up. Dunk

THE STELLARITE, Published irregularly at 6 Win-ship Avenus, San Anseimo, California, Editor, Jean Cockrott, E. par cogy, 8 for 25c. A din breto job cockrott's private file—the other Joe Kennedy was not a bear. 85;

WOPPLE-KIT, Published by Walter A. Coolet, Box 6, Hendelman, Montaina. Published Irregularly at 3c per copy. A legal-sized one-three conducting swap offers of many Sarge's visibility deadline. Sure cure for 20-29 vision as is. Try and clear it up, Walter.

That's the crop for this issue, fens. How about giving Ye Sarge a little more work in this department for the July issue. We are waiting with baited breath—batted with Xeno. Take it away, Wart-ears, and let's be off for Arcturus.

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[DOLTON Cross, 'the celebrated British scientifictionist, steps forward into the spotlight to take his bow this issue. Mr. Cross, whose OTHER EYES WATCHING is the featured novel in the current issue of STARTLING STORIES, is distinguished for being one of the most exhaustive students of actual scientific fact among his colleagues in the field, not only overseas but also in the

As his current novel reveals, he has delved into optics in a manner that should make even Murray Leinster, ritost scientific of our native STF writers, look at his laurels. In the following paragraphs, he explains further how he happened to conceive OTHER EYES WATCHING and how he set about writing it.

The need for a new pair of spectacles and I left him with many thoughts in my mind, discusses the theory of synthetic optics with other acquaintance of a scientific turn of mind, and they all said nothing

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